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=> S Nephropathy

L1 108930 NEPHROPATHY

=> Dup Rem L1

108930 ANSWERS REQUESTED EXCEEDS MAXIMUM ALLOWED OF 500000 You may process up to 50,000 answers per command. Please try to narrow your search until your resulting L# answer set is within the maximum number of answers.

=> S lysophosphatidic acid L2 10068 LYSOPHOSPHATIDIC ACID

=> S EDG receptor

L3 419 EDG RECEPTOR

=> S L1 AND L2 AND L3

L4 0 L1 AND L2 AND L3

=> S L2 AND 13

L5 190 L2 AND L3

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87 DUP REM L5 (103 DUPLICATES REMOVED) ANSWERS '14-39' FROM FILE MEDLINE ANSWERS '40-62' FROM FILE BIOSIS ANSWERS '63-82' FROM FILE CAPLUS ANSWERS '83-87' FROM FILE EMBASE

=> S L6 AND Therapy L7 4 L6 AND THERAPY

=> D t.i L7 1-4

L7 ANSWER 1 OF 4 MEDLINE on STN

TI EDG receptors as a potential therapeutic target in retinal ischemia-reperfusion injury.

L7 ANSWER 2 OF 4 MEDLINE on STN

- TI Critical role of lysophospholipids in the pathophysiology, diagnosis, and management of ovarian cancer.
- L7 ANSWER 3 OF 4 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

TI EDG receptors as a therapeutic target in retinal ischemic injury.

- L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Lysophosphatidic acid is a bioactive mediator in ovarian cancer

=> D ibib abs L7 1-4

L7 ANSWER 1 OF 4 MEDLINE on STN

ACCESSION NUMBER: 2006707700 MEDLINE DOCUMENT NUMBER: PubMed ID: 17026968

TITLE: EDG receptors as a potential

therapeutic target in retinal ischemia-reperfusion injury.
AUTHOR: Savitz Sean I; Dhallu Manjeet S; Malhotra Samit; Mammis
Antonios; Ocava Lenore C; Rosenbaum Pearl S; Rosenbaum

Daniel M

CORPORATE SOURCE: Department of Neurology, Beth Israel Deaconess Medical
Center, Harvard Medical School, USA., drosenba@aecom.vu.edu

CONTRACT NUMBER: EY11257 (NEI)

EY1253 (NEI)
SOURCE: Brain research, (2006 Nov 6) Vol. 1118, No. 1, pp. 168-75.

Electronic Publication: 2006-10-05.

Journal code: 0045503. ISSN: 0006-8993.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, N.I.H., EXTRAMURAL) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 200701

ENTRY DATE: Entered STN: 6 Dec 2006

Last Updated on STN: 24 Jan 2007 Entered Medline: 23 Jan 2007

AB LPA (lysophosphatidic acid) specific endothelial differentiation gene (EDG) receptors have been

implicated in various anti-apoptotic pathways. Ischemia of the brain and retina causes neuronal apoptosis, which raises the possibility that

EDG receptors participate in anti-apoptotic signaling in

ischemic injury. We examined the expression of EDG receptors in a model of retinal ischemia-reperfusion injury and

receptors in a LMT and the rectinal iscnemia-repertision injury and also tested LMR-1035, a novel analogue of LPR, in the rat following global retinal ischemic injury. Am also were subjected to 45 or 60 min of raised intraocular pressure. Animals were sacrificed at 24 h post-ischemia and

retinal tissue was stained for EDG receptors. In

separate experiments, animals were randomized to receive LXR or saline vehicle by intravitreal injection 24 h prior to ischemia. The degree of retinal damage was assessed morphologically by measuring the thickness of the inner retinal layers as well as functionally by electroretinography (ERG). We found that the normal retina has a baseline expression of the LPA receptors, EDG-2 and EDG-4, which are significantly upregulated in the inner layers in response to ischemia. Animals pretreated with LXR-1035 had dose-dependent, significant reductions in histopathologic damage and significant improvement in functional deficits compared with corresponding vehicle-controls, after 45 and 60 min of ischemia. These results suggest that LPA receptor signaling may play an important role in neuroprotection in retinal ischemia-reperfusion injury.

L7 ANSWER 2 OF 4 MEDLINE on STN ACCESSION NUMBER: 2002047383 MEDLINE DOCUMENT NUMBER: PubMed ID: 11775454

TITLE: Critical role of lysophospholipids in the pathophysiology,

diagnosis, and management of ovarian cancer.

AUTHOR: Mills Gordon B; Eder Astrid; Fang Xianjun; Haasegawa Yutaka;
Mao Muling; Lu Yiling; Tanyi Janos; Tabassam Fazal Haq;
Wiener Jon; Lapushin Ruth; Yu Shiangxing; Parrott Jeff A;
Compton Tim; Tribley Walter; Fishman David; Stack M Sharon;
Gaudette Douglas; Jaffe Robert; Furui Tatsuro; Aoki Junken;

Erickson James R

CORPORATE SOURCE: Department of Molecular Therapeutics, MD Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, Texas 77030, USA.

CONTRACT NUMBER: P01 CA64602 (NCI)

SOURCE: Cancer treatment and research, (2002) Vol. 107, pp. 259-83.

Ref: 89

Journal code: 8008541. ISSN: 0927-3042.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)

(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals ENTRY MONTH: 200204

ENTRY DATE: Entered STN: 25 Jan 2002

Last Updated on STN: 24 Apr 2002 Entered Medline: 23 Apr 2002

AR Lysophosphatidic acid (LPA), the simplest of all phospholipids, exhibits pleiomorphic functions in multiple cell lineages. The effects of LPA appear to be mediated by binding of LPA to specific members of the endothelial differentiation gene (Edg) family of G protein-coupled receptors (GPCR). Edg 2, Edg4, and Edg7 are high affinity receptors for LPA, and Edg1 may be a low affinity receptor for LPA. PSP24 has been shown to be responsive to LPA in Xenopus occytes, however, its role in mammalian cells is unclear. The specific biochemical events initiated by the different Edg receptors, as well as the biological outcomes of activation of the individual receptors, are only beginning to be determined. LPA levels are consistently elevated in the plasma and ascites of ovarian cancer patients, but not in most other epithelial tumors, with the exception of cervix and endometrium, suggesting that LPA may be of particular importance in the pathophysiology of ovarian cancer. In support of this concept, ovarian cancer cells constitutively and inducibly produce high levels of LPA and demonstrate markedly different responses to LPA than normal ovarian surface epithelium. Edg4 and Edg7 levels are consistently increased in malignant ovarian epithelial cells contributing to the aberrant response of ovarian cancer cells to LPA. Edg2 may represent a negative regulatory LPA receptor inducing apoptosis in ovarian cancer cells. Thus, increased levels of LPA, altered receptor expression and altered responses to LPA may contribute to the initiation, progression or outcome of ovarian cancer. Over 40% of known drugs target GPCR, making LPA receptors attractive targets for molecular therapeutics. Indeed, using the structure-function relationship of LPA in model systems, we have identified selective Edg2 anatgonists, as well as Edg4 and Edg7 agonists. These lead compounds are being assessed in preclinical model systems. Understanding the mechanisms regulating LPA production, metabolism and function could lead to improved methods for early detection and to new targets for therapy in ovarian cancer.

ACCESSION NUMBER: 2006:47950 BIOSIS DOCUMENT NUMBER: PREV200600057152

TITLE: EDG receptors as a therapeutic target

in retinal ischemic injury.

AUTHOR(S):

Rosenbaum, D. M. [Reprint Author]; Singh, M.; Malhotra, S.;

Savitz, S. I.; Ocava, L. C.; Rosenbaum, P. S. SOURCE:

IOVS, (2005) Vol. 46, No. Suppl. S, pp. 5316. Meeting Info.: Annual Meeting of the Association-for-

Research-in-Vision-and-Ophthalmology. Ft Lauderdale, FL,

USA. May 01 -05, 2005. Assoc Res Vis & Ophthalmol.

CODEN: IOVSDA. ISSN: 0146-0404.

DOCUMENT TYPE: Conference; (Meeting)

Conference; (Meeting Poster)

LANGUAGE: English

ENTRY DATE: Entered STN: 4 Jan 2006 Last Updated on STN: 4 Jan 2006

Purpose: EDG receptors are a family of G-protein

coupled receptors that play an important role in cell growth, development and maintenance, survival and cytoskeletal changes. They exert their effect via intracellular signaling pathways involving various kinases.

The purpose of this study was to evaluate the role of

lysophosphatidic acid (LPA) -specific EDG receptors (EDG-2 and EDG-4) as therapeutic targets in a model of retinal ischemia. Methods: Transient retinalischemia was induced in Sprague-Dawley rats by increasing the intraocular pressure above systolic

arterial pressure(HIOP) for 45 minutes. Immunohistochemistry for EDG receptor was performed at different times following reperfusion. In a separate set of experiments, intravitreal injections of a novel analog of LPA, LXR 1035, was given 6 hours before and 5 minutes after ischemia (HIOP). These animals were sacrificed at 7 days and retinal tissue harvested to evaluate retinal thickness and cell counts. Retinal function was evaluated by electroretinograms (ERG's). Results: EDG-2 and EDG-4 receptor staining was maximally evident at 24 hours following ischemia in the ganglion cell laver and the inner nuclear laver as compared to the sham group of animals where no staining was noted. The LXR 1035-treated group of animals showed significant preservation of retinal thickness, cell counts and retinal function as compared to the vehicle-treated group of animals. Conclusions: The neuroprotective effect of EDGreceptors in retinal ischemia-reperfusion maybe mediated via

activation of phosphatidylinositol 3-kinase, Akt and MAPK and inhibiting cyclic AMP production. Therapies aimed at manipulating these receptors offers potential targets fortherapeutic strategies for ischemic retinal disorders.

L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:459270 CAPLUS

DOCUMENT NUMBER: 137:199096 TITLE:

Lysophosphatidic acid is a bioactive mediator in ovarian cancer

Fang, Xianjun; Schummer, Michel; Mao, Muling; Yu, AUTHOR(S):

Shuangxing; Tabassam, Fazal Hag; Swaby, Ramona; Hasegawa, Yutaka; Tanyi, Janos L.; LaPushin, Ruthie; Eder, Astrid; Jaffe, Robert; Erickson, Jim; Mills,

Gordon B.

CORPORATE SOURCE: Department of Molecular Therapeutics, University of Texas M.D. Anderson Cancer Center, Houston, TX, 77030,

SOURCE:

Biochimica et Biophysica Acta, Molecular and Cell

Biology of Lipids (2002), 1582(1-3), 257-264

CODEN: BBMLFG; ISSN: 1388-1981

Elsevier B.V. PUBLISHER .

DOCUMENT TYPE: Journal; General Review LANGUAGE: English

AB A review. Lysophosphatidic acid (LPA) is a naturally occurring phospholipid that exhibits pleiotrophic biol. activities, ranging from rapid morphol. changes to long-term cellular effects such as induction of gene expression and stimulation of cell proliferation and survival on a wide spectrum of cell types. LPA binds and activates distinct members of the Edg/LP subfamily of G protein-coupled receptors that link to multiple G proteins including G(i), G(g) and G(12/13) to elicit cellular responses. LPA plays a critical role as a general growth, survival and pro-angiogenic factor, in the regulation of physiol. and pathophysiol. processes in vivo and in vitro. Our previous work indicates that abnormalities in LPA metabolism and function in ovarian cancer patients may contribute to the initiation and progression of the disease. Thus, LPA could be a potential target for cancer therapy. This review summarizes evidence that implicates LPA in the pathophysiol. of human

ovarian cancer and likely other types of human malignancies.
REFERENCE COUNT: 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L2 10068 S LYSOPHOSPHATIDIC ACID
L3 419 S RDG RECEPTOR

TOTAL.

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-0.78

L3 419 S EDG RECEPTOR L4 0 S L1 AND L2 AND L3 L5 190 S L2 AND L3 L6 87 DUP REM L5 (103 DUPLICATES REMOVED)

L7 4 S L6 AND THERAPY

=> S L6 AND modulator

L8 4 L6 AND MODULATOR

=> D Ti L8 1-4

L8 ANSWER 1 OF 4 MEDLINE on STN

TI Native and recombinant human Edg4 receptor-mediated Ca(2+) signalling.

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

 ${\tt TI}$ $\,$ Screening for substituted aryl isoxazole effectors of the Edg-1 receptor for the treatment of receptor-associated conditions

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

TI Modulators of EDG receptors, LPA receptors, and SIP receptors for the modulation of neural stem cells and neural progenitor cells and treatment of nervous system disorders

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

TI Methods using Edg receptor modulators for the treatment of Edg receptor-associated conditions

=> D Ibib Abs 1-4

L8 ANSWER 1 OF 4 MEDLINE on STN
ACCESSION NUMBER: 2004193628 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15090154

TITLE: Native and recombinant human Edg4 receptor-mediated Ca(2+)

signalling.

AUTHOR: Simpson Peter B; Villullas Israel Ramos; Schurov Irina; Kerby Julie; Millard Rachel; Haldon Christine; Beer

Margaret S; McAllister George

CORPORATE SOURCE: Merck Sharp & Dohme Research Laboratories, Neuroscience

Research Centre, Harlow, Essex, UK ..

peter_simpson@merck.com

SOURCE: Assay and drug development technologies, (2002 Nov) Vol. 1, No. 1 Pt 1, pp. 31-40.

Journal code: 101151468, ISSN: 1540-658X.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 200405

ENTRY DATE: Entered STN: 20 Apr 2004

Last Updated on STN: 20 May 2004

Entered Medline: 19 May 2004

AB We have developed an assay system suitable for assessment of compound action on the Edg4 subtype of the widely expressed

lysophosphatidic acid (LPA)-responsive Edg

receptor family. Edg4 was stably overexpressed in the rat

hepatoma cell line Rh 7777, and a Ca(2+)-based FLIPR assay developed for measurement of functional responses. In order to investigate the

mechanisms linking Edg4 activation to cytosolic Ca(2+) elevation, we have also studied LPA signalling in a human neuroblastoma cell line that endogenously expresses Edg4. LPA responses displayed similar kinetics and potency in the two cell lines. The Ca(2+) signal generated by activation

of LPA-sensitive receptors in these cells is mediated primarily by endoplasmic reticulum. However, there is a substantial inhibition of the

LPA response by FCCP, indicating that mitochondria also play a key role in the LPA response. Partial inhibition of the response by cyclosporin A could indicate an active Ca(2+) release role for mitochondria in the LPA response. The inositol 1,4,5-triphosphate receptor antagonist 2-aminoethyl diphenyl borate markedly inhibits, but does not abolish, the Ca(2+) response to LPA, suggesting further complexity to the signalling pathways activated by Edg receptors. In comparing Edg signalling in recombinant and native cells, there is a striking overall similarity in receptor expression pattern, agonist potency, and the effect of modulators on the Ca(2+) response. This indicates that the Edg4-overexpressing Rh7777 cell line is a very useful model system for studying receptor pharmacology and signalling mechanisms, and for investigating the Edg4 receptor's downstream effects.

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L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:
                      2004:80878 CAPLUS
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140 - 139547

DOCUMENT NUMBER:

TITLE: Screening for substituted aryl isoxazole effectors of

the Edg-1 receptor for the treatment of receptor-associated conditions

INVENTOR(S): Solow-Cordero, David; Shankar, Geetha; Gluchowski,

Charles: Spencer, Juliet V.

PATENT ASSIGNEE(S): Ceretek Llc. USA

PCT Int. Appl., 94 pp. SOURCE: CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND DATE | APPLICATION NO. | | | | |
|------------------------|--------------------|---------------------|-----------------|--|--|--|
| | | WO 2003-US22463 | 20030717 | | | |
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| CA 2466288 | A1 20040129 | CA 2003-2466288 | 20030717 | | | |
| AU 2003252023 | | AU 2003-252023 | | | | |
| US 2004147562 | A1 20040729 | US 2003-621966 | 20030717 | | | |
| EP 1523556 | A1 20050420 | EP 2003-765716 | 20030717 | | | |
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| IE, SI, L' | , LV, FI, RO, MK, | CY, AL, TR, BG, CZ, | EE, HU, SK | | | |
| JP 2005533852 | T 20051110 | JP 2004-523557 | | | | |
| PRIORITY APPLN. INFO.: | | US 2002-397299P | P 20020718 | | | |
| | | WO 2003-US22463 | W 20030717 | | | |
| OTHER SOURCE(S): | MARPAT 140:1395 | 47 | | | | |

MARPAT 140:139547

5

REFERENCE COUNT:

In one aspect, the present invention provides a method of modulating an Edg-1 receptor mediated biol. activity in a cell. A cell expressing the Edg-1 receptor is contacted with a modulator of the Edg-1 receptor sufficient to modulate the Edg-1 receptor mediated biol. activity. In another aspect, the present invention provides a method for modulating an Edg-1 receptor mediated biol. activity in a subject. A

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

therapeutically effective amount of a modulator of the Edg-1 receptor is administered to the subject.

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2003:913038 CAPLUS

ACCESSION NUMBER: 2003:913038 CAPLUS DOCUMENT NUMBER: 139:375041

TITLE: Modulators of EDG

receptors, LPA receptors, and S1P receptors

for the modulation of neural stem cells and neural progenitor cells and treatment of nervous system disorders

INVENTOR(S): Lindquist, Per; Mercer, Alex; Ronnholm, Harriet;

Wikstrom, Lilian
PATENT ASSIGNEE(S): Neuronova A.B., Swed.

SOURCE: PCT Int. Appl., 87 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| | PAT | ENT I | .00 | | | KIN | D | DATE | | | APPLICATION NO. | | | | | | DATE | | |
|------|-----|-------|------|------|-----|-----|-------------|------|------|----------------|-----------------|-------|------|-----|-----|----------|------|-----|--|
| | WO | 2003 | 0949 | 55 | | A2 | A2 20031120 | | | WO 2003-IB2370 | | | | | | 20030508 | | | |
| | WO | 2003 | 0949 | 55 | | A3 | | 2004 | 0722 | | | | | | | | | | |
| | WO | 2003 | 0949 | 55 | | A8 | | 2004 | 0826 | | | | | | | | | | |
| | | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | , BG, | BR, | BY, | BZ, | CA, | CH, | CN, | |
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| | | 2003 | | | | | | | | | | 2003- | | | | | | | |
| | | | | | | A1 | | 2004 | 0122 | | | 2003- | | | | | 0030 | | |
| PRIO | RIT | APP: | LN. | INFO | . : | | | | | | | 2002- | | | | | | | |
| | | | | | | | | | | | | 2002- | | | | | 0020 | | |
| | | | | | | | | | | | WO 2 | 2003- | IB23 | 70 | 1 | 7 2 | 0030 | 508 | |

AB The invention discloses methods of influencing central nervous system cells to produce progeny useful in the treatment of CNS disorders. More specifically, the invention includes methods of exposing a patient suffering from such a disorder to a reagent that modulates the proliferation, migration, differentiation and survival of central nervous system cells via sphingosine-1-phosphate (SIP) or lysophosphatidic acid (LPA) signaling. These methods are useful for reducing at least one symptom of the disorder. The methodol. of the invention uses modulators of SIP, LPA, or EDG receptors.

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:591307 CAPLUS DOCUMENT NUMBER: 139:143997

TITLE: Methods using Edg receptor

modulators for the treatment of Edg

receptor-associated conditions

INVENTOR(S): Shankar, Geetha; Solow-Cordero, David; Spencer, Juliet

V.; Gluchowski, Charles PATENT ASSIGNEE(S): Ceretek LLC, USA

SOURCE: PCT Int. Appl., 293 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

PATENT INFORMATION:

| PATENT NO. | KIND DATE | APPLICATION NO. | DATE |
|---|--|---|---|
| WO 2003062392
WO 2003062392 | | | |
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LU, MC, NL, PT, SE,
GO, GW, ML, MR, NE, | DE, DK, EE, ES,
SI, SK, TR, BF, |
| CA 2473740
AU 2003214873 | A1 20030731
A1 20030902 | CA 2003-2473740
AU 2003-214873 | 20030121
20030121 |
| IE, SI, I | CH, DE, DK, ES, FR,
LT, LV, FI, RO, MK, | EP 2003-710713
GB, GR, IT, LI, LU,
CY, AL, TR, BG, CZ, | NL, SE, MC, PT,
EE, HU, SK |
| JP 2005519915
US 2005261298
PRIORITY APPLN. INFO. | | JP 2003-562260
US 2003-390428
US 2002-350445P | 20030121
20030314
P 20020118 |
| | | US 2002-350446P
US 2002-350447P
US 2002-350448P
WO 2003-US1881 | P 20020118
W 20030121 |
| | MARPAT 139:14399 | US 2003-352579
97
modulating an Edg-2, | |
| Edg7 receptor-med
Edg-2, Edg-3, Edd
modulator of the | diated biol. activit
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compds., e.g. |
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| (FILE 'HOME' ENT | ERED AT 09:45:37 ON | 03 JUL 2007) | |

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FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 09:45:58 ON 03 JUL 2007
L1
        108930 S NEPHROPATHY
         10068 S LYSOPHOSPHATIDIC ACID
L2
L3
           419 S EDG RECEPTOR
             0 S L1 AND L2 AND L3
L4
           190 S L2 AND L3
L5
L6
            87 DUP REM L5 (103 DUPLICATES REMOVED)
             4 S L6 AND THERAPY
L8
             4 S L6 AND MODULATOR
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=> S L9 AND pd<=20031211
2 FILES SEARCHED...
L10 695 L9 AND PD<=20031211
=> Dup rem L10
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=> Dup rem L10 PROCESSING COMPLETED FOR L10

L11 303 DUP REM L10 (392 DUPLICATES REMOVED)
ANSWERS '1-144' FROM FILE MEDLINE
ANSWERS '145-200' FROM FILE BIOSIS
ANSWERS '201-292' FROM FILE CAPLUS
ANSWERS '293-303' FROM FILE EMBASE

=> S L11 (S)(EDG-2 OR EDG2 OR LPA1)
PROXIMITY OPERATOR LEVEL NOT CONSISTENT MITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L56 (S)(EDG-2'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT MITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L56 (S)(EDG-2'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L60 (S)(EDG-2'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L62 (S)(EDG-2'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L62 (S)(EDG-2'
12 37 L11 (S)(EDG-2 OR EDG2 OR LPA1)

=> D ti L12 1-37

- L12 ANSWER 1 OF 37 MEDLINE on STN
- TI Cyclic phosphatidic acid elicits neurotrophin-like actions in embryonic hippocampal neurons.
- L12 ANSWER 2 OF 37 MEDLINE on STN
- TI Pharmacological characterization of lysophospholipid receptor signal transduction pathways in rat cerebrocortical astrocytes.
- L12 ANSWER 3 OF 37 MEDLINE on STN
- TI Ki16425, a subtype-selective antagonist for EDG-family lysophosphatidic acid receptors.
- L12 ANSWER 4 OF 37 MEDLINE on STN
 - I Subtype-selective antagonists of lysophosphatidic Acid receptors inhibit platelet activation triggered by the lipid core of atherosclerotic plaques.
- L12 ANSWER 5 OF 37 MEDLINE on STN
- TI Agonist-induced endocytosis of lysophosphatidic acid-coupled LPA1/EDG-2 receptors via a dynamin2- and Rab5-dependent pathway.
- L12 ANSWER 6 OF 37 MEDLINE on STN
- TI Human platelets respond differentially to lysophosphatidic acids having a highly unsaturated fatty acyl group and alkyl ether-linked lysophosphatidic acids.
- L12 ANSWER 7 OF 37 MEDLINE on STN
- TI Molecular basis for lysophosphatidic acid receptor antagonist selectivity.
- L12 ANSWER 8 OF 37 MEDLINE on STN
- TI Noradrenaline release-inhibiting receptors on PC12 cells devoid of alpha(2(-)) and CB(1) receptors: similarities to presynaptic imidazoline and edg receptors.
- L12 ANSWER 9 OF 37 MEDLINE on STN

- TI Activity of 2-substituted lysophosphatidic acid (LPA) analogs at LPA receptors: discovery of a LPA1/LPA3 receptor antagonist.
- L12 ANSWER 10 OF 37 MEDLINE on STN
- TI Identification of lysophospholipid receptors in human platelets: the relation of two agonists, lysophosphatidic acid and sphingosine 1-phosphate.
- L12 ANSWER 11 OF 37 MEDLINE on STN
- TI Naturally occurring analogs of lysophosphatidic acid elicit different cellular responses through selective activation of multiple receptor subtypes.
- I.12 ANSWER 12 OF 37 MEDIJNE on STN
- TI Edg-2/Vzg-1 couples to the yeast pheromone response pathway selectively in response to lysophosphatidic acid.
- L12 ANSWER 13 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
- TI Lack of stereospecificity in lysophosphatidic acid enantiomer-induced calcium mobilization in human erythroleukemia cells.
- L12 ANSWER 14 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on
- TI LYSOPHOSPHATIDIC ACID IS A GROWTH FACTOR FOR HEPATIC OVAL (STEM) CELLS.
- L12 ANSWER 15 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on
- TI CHARACTERIZATION OF LYSOPHOSPHOLIPID RECEPTOR (LPR) SIGNAL TRANSDUCTION PATHWAYS IN RAT CORTICAL ASTROCYTES (AST).
- L12 ANSWER 16 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
- TI Lysophosphatidic acid (LPA) regulation of murine blastocyst development involves crosstalk with embryonic heparin-binding epidermal growth factor-like growth factor (HB-EGF).
- L12 ANSWER 17 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
- TI Fatty alcohol phosphates are subtype-selective agonists and antagonists of lysophosphatidic acid receptors.
- L12 ANSWER 18 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on
- TI A dual lysophosphatidic acid (LPA) antagonist (LPA1/LPA3), VPC 12249, reduces renal ischemia-reperfusion injury (IRI).
- L12 ANSWER 19 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on
- ${\tt TI}$ Stereochemical properties of lysophosphatidic acid receptor activation and metabolism.
- L12 ANSWER 20 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
- TI Lysophosphatidic acid (LPA) induced hypertrophy in rat neonatal myocytes.
- L12 ANSWER 21 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
- TI LPA analogs as agonists of the Edg2 LPA receptor.

- L12 ANSWER 22 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
- TI Agonist-induced internalization of lysophosphatidic acid-coupled Edg2 receptors via clathrin-dependent endocytosis.
- L12 ANSWER 23 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Preparation of N-(2'-carbamoyl-1,1'-biphenyl-2-ylcarbonyl)- β -alanine derivatives as lysophosphatidic acid receptor antaconists
- L12 ANSWER 24 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Lysophosphatidic acid (LPA) receptor agonists and antagonists, their preparation, and methods of use
- L12 ANSWER 25 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Identification of p2y9/GPR23 as a Novel G Protein-coupled Receptor for Lysophosphatidic Acid, Structurally Distant from the Edg Family
- L12 ANSWER 26 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Lysophosphatidic acid (LPA) receptor agonists and antagonists, their preparation, and methods of use
- L12 ANSWER 27 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Synthesis and biological evaluation of lysophosphatidic acid antagonists
- L12 ANSWER 28 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Molecular modeling of lysophosphatidic acid receptor antagonists
- L12 ANSWER 29 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Novel lysophosphatidic acid receptor agonists and antagonists
- L12 ANSWER 30 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Role of ether-linked lysophosphatidic acids in ovarian cancer cells
- L12 ANSWER 31 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Synthesis of lysophosphatidic acid receptor agonists and antagonists and their use for cancer inhibition, wound healing, and enhancement of cell proliferation
- L12 ANSWER 32 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Assessment of agonism at G-protein coupled receptors by phosphatidic acid and lysophosphatidic acid in human embryonic kidney 293 cells
- L12 ANSWER 33 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Methods for detecting compounds which modulate the activity of LPA (lysophosphatidic acid) and its receptor EDG-2
- L12 ANSWER 34 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Lysophosphatidic acid (LPA) receptors of the EDG family are differentially activated by LPA species. Structure-activity relationship of cloned LPA receptors
- L12 ANSWER 35 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Analysis of the EDG2 receptor based on the structure/activity relationship of LPA
- L12 ANSWER 36 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN

- TI Methods using a lysophosphatidic acid receptor agonist for promoting survival of myelin-producing cells
- L12 ANSWER 37 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Recombinant human G protein-coupled lysophosphatidic acid receptors mediate intracellular calcium mobilization

=> Log off H

SESSION WILL BE HELD FOR 120 MINUTES STN INTERNATIONAL SESSION SUSPENDED AT 11:17:22 ON 03 JUL 2007

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAEGS1646

PASSWORD:

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FILE 'MEDLINE' ENTERED AT 11:22:07 ON 03 JUL 2007
FILE 'ENDIS' ENTERED AT 11:22:07 ON 03 JUL 2007
Copyright (c) 2007 The Thomson Corporation
FILE 'CAPLUS' ENTERED AT 11:22:07 ON 03 JUL 2007
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 FULL ESTIMATED COST
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FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 09:45:58 ON 03 JUL 2007 108930 S NEPHROPATHY L2 10068 S LYSOPHOSPHATIDIC ACID L3 419 S EDG RECEPTOR L4 0 S L1 AND L2 AND L3 L5 190 S L2 AND L3 L6 87 DUP REM L5 (103 DUPLICATES REMOVED) L7 4 S L6 AND THERAPY L8 4 S L6 AND MODULATOR L9 1072 S L2 (S)(AGONIST OR ANALOG OR ANTAGONIST OR INHIBITOR) L10 695 S L9 AND PD<=20031211 303 DUP REM L10 (392 DUPLICATES REMOVED) 37 S L11 (S) (EDG-2 OR EDG2 OR LPA1)

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L12 ANSWER 18 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on

STM

ACCESSION NUMBER: 2002:567555 BIOSIS

DOCUMENT NUMBER: PREV200200567555

TITLE: A dual lysophosphatidic acid (LPA) antagonist (LPA1/LPA3), VPC 12249,

reduces renal ischemia-reperfusion injury (IRI).

AUTHOR(S): Okusa, Mark D. [Reprint author]; Ye, Hong [Reprint author];

Huang, Liping [Reprint author]; Heise, Christopher E.; Santos, Webster L.; MacDonald, Timonthy; Lynch, Kevin R.

CORPORATE SOURCE: Medicine, University of Virginia, Charlottesville, VA, USA SOURCE: Journal of the American Society of Nephrology, (

September, 2002) Vol. 13, No. Program and Abstracts

Issue, pp. 140A. print.

Meeting Info.: Meeting of the American Society of

Nephrology. Philadelphia, PA, USA. October 30-November 04,

2002. American Society of Nephrology.

CODEN: JASNEU. ISSN: 1046-6673.
DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

LANGUAGE: English
ENTRY DATE: Entered STN: 7 Nov 2002

Last Updated on STN: 7 Nov 2002

=> FIL STNGUIDE

 COST IN U.S. DOLLARS
 SINCE FILE
 TOTAL

 FULL ESTIMATED COST
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 74.35

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

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FILE 'STNGUIDE' ENTERED AT 11:23:39 ON 03 JUL 2007

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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Jun 29, 2007 (20070629/UP).

=> D Ibib ABS L12 11, 17,21-24,26,27,29,31,32

YOU HAVE REQUESTED DATA FROM FILE 'MEDLINE, BIOSIS, CAPLUS' - CONTINUE? (Y) /N:y

L12 ANSWER 11 OF 37 MEDLINE on STN ACCESSION NUMBER: 1999074344 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9855625

TITLE: Naturally occurring analogs of

lysophosphatidic acid elicit different

cellular responses through selective activation of multiple

receptor subtypes.

AUTHOR: Fischer D J; Liliom K; Guo Z; Nusser N; Viraq T;

Murakami-Murofushi K; Kobayashi S; Erickson J R; Sun G;

Miller D D; Tigyi G

CORPORATE SOURCE: Department of Physiology and Biophysics, The University of

Tennessee, Memphis, TN 38163, USA.
CONTRACT NUMBER: HL07746 (NHLBI)

SOURCE: Molecular pharmacology, (1998 Dec) Vol. 54, No.

6, pp. 979-88.

Journal code: 0035623. ISSN: 0026-895X.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199901

ENTRY DATE: Entered STN: 28 Jan 1999

Last Updated on STN: 28 Jan 1999 Entered Medline: 12 Jan 1999

AB Lysophosphatidic acid (LPA), plasmalogen-glycerophosphate (alkenyl-GP) and, cyclic-phosphatidic acid (cyclic-PA) are naturally occurring phospholipid growth factors (PLGFs). PLGFs elicit diverse biological effects via the activation of G protein-coupled receptors in a variety of cell types. In NIH3T3 fibroblasts, LPA and alkenyl-GP both induced proliferation, whereas cyclic-PA was antiproliferative. LPA and alkenyl-GP decreased cAMP in a pertussis toxin-sensitive manner, whereas cyclic-PA caused cAMP to increase. LPA and alkenyl-GP both stimulated the activity of the mitogen-actived protein kinases extracellular signal regulated kinases 1 and 2 and c-Jun NH2-terminal kinase, whereas cyclic-PA did not. All three PLGFs induced the formation of stress fibers in NIH3T3 fibroblasts. To determine whether these lipids activated the same or different receptors, heterologous desensitization patterns were established among the three PLGFs by monitoring changes in intracellular Ca2+ in NIH3T3 fibroblasts. LPA cross-desensitized both the alkenvl-GP and cyclic-PA responses. Alkenyl-GP cross-desensitized the cyclic-PA response, but only partially desensitized the LPA response. Cyclic-PA only partially desensitized both the alkenyl-GP and LPA responses. We propose that pharmacologically distinct subsets of PLGF receptors exist that distinguish between cyclic-PA and alkenyl-GP, but are all activated by LPA. We provide evidence that the PSP24 receptor is selective for LPA and not activated by the other two PLGFs. RT-PCR and Northern blot analysis indicate the co-expression of mRNAs encoding the EDG-2, EDG-4, and PSP24 receptors in a variety of cell lines and tissues. However, the lack of mRNA expression for these three receptors in the LPA-responsive Rat-1 and Sp2-O-Ag14 cells suggests that a number of PLGF receptor subtypes remain unidentified.

L12 ANSWER 17 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:358695 BIOSIS

PREV200300358695

DOCUMENT NUMBER: TITLE:

Fatty alcohol phosphates are subtype-selective

agonists and antagonists of

lysophosphatidic acid receptors.

AUTHOR(S):

Virag, Tamas [Reprint Author]; Elrod, Don B.; Liliom, Karoly; Sardar, Vineet M.; Parrill, Abby L.; Yokoyama,

Kazuaki; Durgam, Gangadhar; Miller, Duane D.; Tigvi, Gabor

Physiology, Univ. of Tennessee, 894 Union Ave., Memphis, CORPORATE SOURCE:

TN, 38163, USA

tvirag@physio1.utmem.edu; don.elrod@lynntech.com;

liliom@enzim.hu; vmsardar@vahoo.com; aparrill@memphis.edu; yokoyama@physiol.utmem.edu; gdurgam@utmem.edu;

dmiller@utmem.edu; gtigyi@physio1.utmem.edu

SOURCE:

FASEB Journal, (March 2003) Vol. 17, No. 4-5, pp. Abstract No. 123.8. http://www.fasebj.org/. e-file. Meeting Info.: FASEB Meeting on Experimental Biology: Translating the Genome. San Diego, CA, USA. April 11-15,

2003. FASEB.

ISSN: 0892-6638 (ISSN print).

DOCUMENT TYPE: Conference; (Meeting) Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 6 Aug 2003

Last Updated on STN: 6 Aug 2003

Lysophosphatidic acid (LPA) activates the GPCRs LPA1, LPA2, and LPA3. A better understanding of the physiological and pathological role of LPA requires receptor subtype-specific ligands. Here, we report the synthesis and pharmacological characterization of fatty alcohol phosphates (FAPs) with saturated hydrocarbon chains, ranging from 4 to 22 carbon atoms. Selection of FAP as the lead structure was based on computational modeling as a predicted minimal structure that satisfies the two point pharmacophore model developed earlier. The 10 and 12 carbon chain FAPs (FAP 10 and FAP 12) were found to be specific agonists for LPA2, whilst selective antagonists for LPA3. FAP-12 was a weak antagonist for LPA1. Neither LPA1 nor LPA3 were activated by FAPs , whereas LPA2 was activated by C10-to-14 FAPs. Computational docking FAP 10 and 12 positioned these ligands in the LPA binding pocket in the LPA2 model. The inhibitory effect of FAP showed a strong dependence on the hydrocarbon chain length with C12 being the best in Xenopus oocytes and in LPA3-expressing RH7777 cells. FAP-12 did not activate or interfere with many GPCRs. These data suggest that FAPs are ligands of LPA receptors and

L12 ANSWER 21 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on

that FAP 10 and FAP 12 are the first receptor subtype-specific agonists

ACCESSION NUMBER: 2002:308725 BIOSIS

DOCUMENT NUMBER: PREV200200308725

TITLE: LPA analogs as agonists of the Edg2 LPA receptor.
AUTHOR(S): Erickson, James R. [Inventor, Reprint author]

CORPORATE SOURCE: El Cerrito, CA, USA

for LPA2.

ASSIGNEE: Atairgin Technologies, Inc.

PATENT INFORMATION: US 6380177 20020430

SOURCE: Official Gazette of the United States Patent and Trademark

Office Patents, (Apr. 30, 2002) Vol. 1257, No. 5. http://www.uspto.gov/web/menu/patdata.html. e-file.

CODEN: OGUPE7. ISSN: 0098-1133.

DOCUMENT TYPE: Patent LANGUAGE: English

ENTRY DATE: Entered STN: 22 May 2002

Last Updated on STN: 22 May 2002

AB Applicant has probed the Edg2 lysophosphatidic

acid (LPA) receptor with a series of LPA analogs to determine receptor activation. The present invention is drawn to a series

of LPA analogs which function as Edg² receptor agonists, and methods of using such compounds to activate the Edg² receptor of the surface of a cell. The compounds of the invention comprise a glycerol backbone with an Snl ester-linked saturated or unsaturated alkyl group, substitutions of the hydroxyl group (--OH) at carbon two of the glycerol backbone, and optional replacement of the phosphate di-anion with either a hydroxyl group or a dimethylated phosphate. These LPA analogs may find uses in cancer and neurological disorders.

L12 ANSWER 22 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on

ACCESSION NUMBER: 2002:93755 BIOSIS DOCUMENT NUMBER: PREV200200093755

TITLE: Agonist-induced internalization of

lysophosphatidic acid-coupled

Edg2 receptors via clathrin-dependent endocytosis.

AUTHOR(S): Murph, Mandi Michelle [Reprint author]; Scaccia, Launa

[Reprint author]; Radhakrishna, Harish [Reprint author]

CORPORATE SOURCE: Biology, Georgia Institute of Technology, 315 First Drive,

IBB No. 2228, Atlanta, GA, 30332, USA

SOURCE: Molecular Biology of the Cell, (Nov, 2001) Vol.

12, No. Supplement, pp. 89a. print.

Meeting Info.: 41st Annual Meeting of the American Society for Cell Biology. Washington DC, USA. December 08-12, 2001.

American Society for Cell Biology.

CODEN: MBCEEV. ISSN: 1059-1524.

DOCUMENT TYPE: Conference; (Meeting)

Conference: Abstract: (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 24 Jan 2002

Last Updated on STN: 25 Feb 2002

L12 ANSWER 23 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:950976 CAPLUS

DOCUMENT NUMBER: 140 - 16961

TITLE: Preparation of N-(2'-carbamoyl-1,1'-biphenyl-2ylcarbonyl)-β-alanine derivatives as

lysophosphatidic acid receptor

antagonists

INVENTOR(S): Habashita, Hiromu; Terakado, Masahiko; Nakade, Shinii;

Seko, Takuva PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

PCT Int. Appl., 434 pp. SOURCE:

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PATENT NO. | | | | | | KIND DATE | | | APPLICATION NO. | | | | | DATE | | | | |
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| | | | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NI, | NO, | NZ, | OM, | PH, | |
| | | | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | ΤJ, | TM, | TN, | TR, | TT, | TZ, | |
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| | | RW: | GH, | GM, | KE, | LS, | MW, | ΜZ, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | ΑZ, | BY, | |
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| PRIOR | RITY | Y APP | LN. | INFO | . : | | | | | | JP 2 | | | | | | | | |
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| OTHER | 8.0 | MIRCE. | (S) . | | | MARI | PΛT | 140 • | 1696 | 1 | | | | | | | | | |

OTHER SOURCE(S): MARPAT 140:16961

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AB The title compds. [I; A = C1-6 alkylene, C2-6 alkenylene, or C2-6 alkynylene each optionally substituted by 1-3 C1-4 alkyl group(s); the ring Cycl = C3-15 carbocyclic or 3- to 13-membered heterocyclic ring containing 1-4 N, 1-2 O, and/or 1-2 S atom(s); R1 = C1-4 alkyl, halo, cyano, trihalomethyl, OR6, SR7, NR8R9, NO2, CO2R10, CONR11R12, NR13COR14, SO2NR15R16, NR17SO2R18, S(O)R19, SO2R20; R6-R20 = H, C1-4 alkv1; R2, R3 = C1-4 alkyl, C1-4 alkoxy, halo; R4, R5 = H, C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, R210-C1-4 alkyl, R22R23N-C1-4 alkyl, etc.; or NR4R5 is combined together to represent 3- to 15-membered mono-, di-, or tricyclic heterocyclyl containing at least one N atom and optionally substituted by OR25; wherein R21, R22, R23, R25 = H, C1-4 alkyl, C2-6 acyl, trihaloacetyl; wherein m, n = an integer of 0-4; p = an integer of 0-5; when p, m, or n is ≥2, R1, R2, or R3 is same or different] or prodrugs or salts thereof are prepared These compds. engage in lysophosphatidic acid (LPA) receptor bonding, in particular EDG-2 and antagonism and hence are useful in the prevention and/or treatment of urol. diseases (symptoms associated with prostate-gland enlargement or neuropathic bladder, bone tumors of the spine, disk herniation, spinal canal stenosis, symptoms attributed to diabetes, lower urinary tract infections (e.g., obstruction of lower urinary tract), inflammation of lower urinary tract and polyuria), cancer-associated diseases (solid tumor, solid tumor metastasis, angiofibroma, myeloma, multiple myeloma, Kaposi's sarcoma, leukemia and wet metastasis of cancer), proliferative diseases (diseases accompanied by abnormal angiogenesis, blocked artery and lung fibrosis), inflammation/immune diseases (psoriasis, nephropathy, hepatitis and pneumonia), diseases caused by secretion disorder (Sjogren's syndrome) or brain-associated diseases (brain block, cerebral hemorrhage and cerebral or peripheral nerve disorder). Thus, 3-[N-[2-(2-carboxyphenyl)phenyl]-N-[2-(2,5dimethoxyphenyl)ethyllaminolpropanoic acid-bound to Wang resin (preparation given) was condensed with 4-chlorobenzylamine using 1-hydroxybenzotriazole monohydrate and N, N-diisopropylcarbodiimide in DMF at room temperature for 16

Т

followed by treatment with a 9:1 mixture of CF3CO2H and H2O at room temperature for 1 h to give $3-[N-[2-[2-[(4-chlorobenzylamine] carbonyl]phenyl]carbonyl]-N-[2-(2,5-dimethoxyphenyl)lethyl]aminolpropanoic acid (II). In an EDG-2 antagonism assay, II showed IC50 of 0.41 <math>\mu$ mol/L for inhibiting the increase in cellular calcium ion-concentration in CHO cells over-expressing human EDG-2 quee. A tablet and an

ampule containing II were prepared

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2003:532340 CAPLUS DOCUMENT NUMBER: 139:95489

TITLE: Lysophosphatidic acid (LPA)

Patent

receptor agonists and antagonists, their preparation, and methods of use

INVENTOR(S): Miller, Duane D.; Tigyi, Gabor; Dalton, James T.; Sardar, Vineet M.; Elrod, Don B.; Xu, Huiping; Baker,

Daniel L.; Wang, Dean; Liliom, Karoly; Fischer, David J.; Virag, Tamas; Nusser, Nora

PATENT ASSIGNEE(S):

SOURCE:

U.S. Pat. Appl. Publ., 73 pp., Cont.-in-part of U.S.

Ser. No. 811,838. CODEN: USXXCO

DOCUMENT TYPE:

NGUAGE: English

FAMILY ACC. NUM. COUNT: 3 PATENT INFORMATION:

| PATENT NO. | | APPLICATION NO. | DATE |
|------------------------|-----------------|---------------------|-----------------|
| | | | |
| US 2003130237 | A1 20030710 | US 2001-953686 | 20010917 < |
| US 2003027800 | A1 20030206 | US 2001-811838 | 20010319 < |
| US 6875757 | B2 20050405 | | |
| CA 2460319 | A1 20030327 | CA 2002-2460319 | 20020917 < |
| | | WO 2002-US29593 | |
| WO 2003024402 | | | |
| W: AE, AG, AL, | AM, AT, AU, AZ, | BA, BB, BG, BR, BY, | BZ, CA, CH, CN, |
| | | DZ, EC, EE, ES, FI, | |
| | | JP, KE, KG, KP, KR, | |
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| | | MC, NL, PT, SE, SK, | |
| | | ML, MR, NE, SN, TD, | |
| | | AU 2002-336595 | |
| | | EP 2002-773455 | |
| | | GB, GR, IT, LI, LU, | |
| | | CY, AL, TR, BG, CZ, | |
| | | JP 2003-528500 | |
| | | US 2005-67884 | |
| | | US 2000-190370P | |
| PRIORITY APPLN. INFO.: | | | |
| | | US 2001-811838 | |
| | | US 2001-953686 | |
| | | WO 2002-US29593 | W 20020917 |

OTHER SOURCE(S): MARPAT 139:95489

cancer, enhancing cell proliferation, treating a wound, treating apoptosis or preserving or restoring function in a cell, tissue, or organ, culturing cells, preserving organ or tissue function, and treating a dermatol. condition.

L12 ANSWER 26 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:242130 CAPLUS

DOCUMENT NUMBER: 138:265691

TITLE: Lysophosphatidic acid (LPA) receptor agonists and antagonists,

their preparation, and methods of use

INVENTOR(S): Miller, Duane D.; Tiqyi, Gabor; Dalton, James T.; Sardar, Vineet M.; Elrod, Don B.; Xu, Huiping; Baker, Daniel L.; Wang, Dean; Liliom, Karoly; Fischer, David

J.; Virag, Tamas; Nusser, Nora

PATENT ASSIGNEE(S): The University of Tennessee Research Corporation, USA

SOURCE: PCT Int. Appl., 148 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent. LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

| PA' | PATENT NO. | | | | | | | | | APPLICATION NO. | | | | | | | |
|---------|------------|---|--|--|--|--|---|--|--|---|---|---|---|---|--|--|--|
| | 20030 | 0244 | 02 | | A2 20030327
A3 20040219 | | | WO 2002-US29593 | | | | | 20020917 < | | | | |
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2003 | | | | | | | | 2 | 0010 | 917 < |
| | 24603 | | | | | | | | | | | | | | | | 917 < |
| AU | 20023 | 3365 | 95 | | A1 | | 2003 | 0401 | | AU 2 | 002- | 3365 | 95 | | 2 | 0020 | 917 < |
| EP | 1427 | 424 | | | A2 | | 2004 | 0616 | | EP 2 | 002- | 7734 | 55 | | 2 | 0020 | 917 |
| | | IE, | SI, | LT, | LV, | FI, | ES,
RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | SK | | |
| | 2005 | | | | T | | 2005 | 0331 | | | | | | | | | |
| PRIORIT | Y APPI | LN. | INFO | .: | | | | | | US 2
US 2
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001- | 1903
8118 | 70P
38 | | A2 2 | 0000 | 317
319 |

MARPAT 138:265691 OTHER SOURCE(S):

AB The invention discloses LPA receptor agonists and antagonists, as well as pharmaceutical compns. which include those compds. Compound preparation is described. Also disclosed are methods of using the compds., such methods including inhibiting LPA activity on an LPA receptor, modulating LPA receptor activity, treating cancer, enhancing cell proliferation, treating a wound, treating apoptosis or preserving or restoring function in a cell, tissue, or organ, culturing cells, preserving organ or tissue function, and treating a dermatol. condition.

L12 ANSWER 27 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2003:184214 CAPLUS TITLE .

Synthesis and biological evaluation of lysophosphatidic acid

antagonists

AUTHOR(S): Heasley, Brian H.; Macdonald, Timothy L.; Lynch, Kevin

CORPORATE SOURCE: Department of Chemistry, University of Virginia,

Charlottesville, VA, 22904-4319, USA

Abstracts of Papers, 225th ACS National Meeting, New SOURCE:

Orleans, LA, United States, March 23-27, 2003 (2003), MEDI-248. American Chemical Society:

Washington, D. C. CODEN: 69DSA4

DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE:

English

Lysophosphatidic acid (LPA) antagonists have

potential applications as inhibitors of inflammation, cancer invasiveness, and atherogenesis. However, the detailed physiol. implications of LPA occupancy of individual receptors are largely unknown because subtype-selective agonists/antagonists are unavailable currently. Compds. containing bulky hydrophobic substituents at the 2-position of an N-acyl ethanolamide phosphate core structure have been shown to possess dual LPA1/LPA3 competitive antagonism. The most potent analog of this series (VPC12249) has been modified so as to optimize potency and selectivity at LPA receptors. Compds. containing variation in the acyl chain, linker region, and polar head group have been synthesized and screened for biol. activity at LPA receptors. Several dual antagonists of comparable activity have been discovered. One compound (VPC32104) shows improved

sythetic methods and biol. evaluation of LPA receptor antagonists.

L12 ANSWER 29 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:276112 CAPLUS

DOCUMENT NUMBER: 136:289091 TITLE:

Novel lysophosphatidic acid receptor agonists and antagonists

Lynch, Kevin R.; MacDonald, Timothy L.; Heise, INVENTOR(S):

Christopher E.; Santos, Webster L.; Okusa, Mark D.

potency and selectivity for LPA1. This paper will describe the

PATENT ASSIGNEE(S): University of Virginia Patent Foundation, USA SOURCE: PCT Int. Appl., 81 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | TENT | | | | KIN | D | DATE | | | APPLICATION NO. | | | | | | DATE | | | |
|----|------|---------------|-----|-----|-----|----------|------|------|----------------|-----------------|------|------|----------|-----|------------|------|-------|---|--|
| | | | | | | - | | | | | | | | | | | | | |
| WO | 2002 | 0290 | 01 | | A2 | | 2002 | 0411 | | WO 2 | 001- | US30 | 936 | | 20011003 < | | | < | |
| WO | 2002 | 0290 | 01 | | A3 | | 2003 | 0821 | | | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | BZ, | CA, | CH, | CN, | | |
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| | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZW, | AM, | ΑZ, | BY, | KG, | | |
| | | KZ, | MD, | RU, | ΤJ, | TM, | ΑT, | BE, | CH, | CY, | DE, | DK, | ES, | FΙ, | FR, | GB, | GR, | | |
| | | IE, | IT, | LU, | MC, | NL, | PT, | SE, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | | |
| | | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | | | | | | | | | |
| AU | 2001 | 9653 | 6 | | A | | 2002 | 0415 | | AU 2 | 001- | 9653 | 6 | | 2 | 0011 | 003 < | < | |
| EP | 1361 | 872 | | | A2 | | 2003 | 1119 | | EP 2 | 001- | 9774 | 15 | | 2 | 0011 | 003 < | < | |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, | | |
| | | IE, | SI, | LT, | LV, | FΙ, | RO, | MK, | CY, | AL, | TR | | | | | | | | |
| US | 2004 | 2004122236 A1 | | | | 20040624 | | | US 2003-398305 | | | | 20031015 | | | | | | |

B2 20070130 US 7169818

US 2000-237436P P 20001003 US 2001-264046P P 20010125 US 2001-297507P P 20010613 WO 2001-US30936 W 20011003 PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 136:289091

The present invention is directed to compns. comprising lysophosphatidic acid analogs and methods of

using such analogs as agonist or antagonists

of lysophosphatidic acid (LPA) receptor activity. In

addition the invention is directed to LPA receptor agonists that vary in the degree of selectivity at individual LPA receptors (i.e. LPA1, LPA2 and LPA3). More particularly the present invention is directed to

LPA analogs wherein the glycerol is replaced with ethanolamine and a variety of substitutions have been linked at the second carbon atom.

L12 ANSWER 31 OF 37 CAPLUS COPYRIGHT 2007 ACS on SIN

ACCESSION NUMBER: 2001:713600 CAPLUS

135:267219 DOCUMENT NUMBER:

TITLE: Synthesis of lysophosphatidic acid receptor agonists and antagonists

and their use for cancer inhibition, wound healing,

and enhancement of cell proliferation

INVENTOR(S): Miller, Duane D.; Tigyi, Gabor; Dalton, James T.; Sardar, Vineet M.; Elrod, Don B.; Xu, Huiping; Baker,

Daniel L.; Wang, Dean; Liliom, Karoly; Fischer, David J.; Virag, Tamas; Nusser, Nora

PATENT ASSIGNEE(S): University of Tennessee Research Corporation, USA

SOURCE: PCT Int. Appl., 140 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3 PATENT INFORMATION:

| PA: | PATENT NO. | | | | | | KIND DATE | | | APPLICATION NO. | | | | | DATE | | | |
|---------|------------|------|------|-----|-----|-----|-----------|------|-----|-----------------|------|-------|-----|--------|------|------|-------|--|
| | 2001 | | | | | | 20010927 | | | WO 2 | 001- | US87: | 29 | 200103 | | | 319 < | |
| WO | 2001 | | | | | | | | | | | | | | | | | |
| | W: | | | | | | AU, | | | | | | | | | | | |
| | | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | GM, | HR, | |
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| | | ZA. | ZW | | | | | | | | | | | | | | | |
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| CA | 2402 | | | | | | | | | | | | | | | 0010 | 319 < | |
| | 2001 | | | | | | | | | | | | | | | | | |
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| LP | | | | | | | | | | | | | | | | | | |
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| | | | | | | | RO, | | | | | | | | | | | |
| JP | 2004 | 5066 | 04 | | T | | 2004 | 0304 | | JP 2 | 001- | 5694 | 03 | | 2 | 0010 | 319 | |
| RIORIT: | Y APP | LN. | INFO | . : | | | | | | US 2 | 000- | 1903 | 70P | 1 | P 2 | 0000 | 317 | |
| | | | | | | | | | | WO 2 | 001- | US87: | 29 | 1 | W 2 | 0010 | 319 | |
| | | | | | | | | | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 135:267219

The present invention relates to lysophosphatidic acid (LPA) analogs and cyclic derivs. of the analogs as

well as pharmaceutical compns. which include those compds. Also disclosed are methods of using such compds., which have activity as agonists or as antagonists of LPA receptors; such methods including inhibiting LPA

activity on an LPA receptor, modulating LPA receptor activity, treating cancer, enhancing cell proliferation, and treating a wound. Thus, 2-amino-3-oxo-3-(tetradecylamino)propyl dihydrogen phosphate (I), 2-(acetylamino)-3-oxo-3-(tetradecylamino)propyl dihydrogen phosphate (II), and 1,2-(3-octadecyloxypropane)-bis(dihydrogen phosphate) (III) were synthesized. The cytotoxicity of these compds. on prostate cancer cell lines was determined The IC50's observed were 0.7 ± 0.1 for I on PC-3 cells, 0.7 ± 0.1 for II on DU145 cells, and 3.1 ± 3.2 for III on LNCaP cells. Addnl., phosphoric acid monododecvl ester (IV) was prepared and screened in Xenopus occytes (which produce the PSP24 receptor) and in recombinant RH7777 cells producing Edg-2, Edg-4, and Edg-7 receptors. In Xenopus IV inhibited LPA-induced chloride currents with an IC50 value of about 8.1 nM. In Edg-2 and Edg-4-expressing RH7777 cells IV significantly inhibited the Ca2+ responses while in Edg-7-expressing cells this compound increased the Ca2+ responses.

L12 ANSWER 32 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2001:688874 CAPLUS

ACCESSION NUMBER: 2001:68887-DOCUMENT NUMBER: 135:341872

TITLE: Assessment of agonism at G-protein coupled receptors

by phosphatidic acid and lysophosphatidic acid in human embryonic kidney 293 cells

human embryonic kidney 293 cell

AUTHOR(S): Alderton, Forbes; Sambi, Balwinder; Tate, Rothwelle;

Pyne, Nigel J.; Pyne, Susan

CORPORATE SOURCE: Department of Physiology and Pharmacology, Strathclyde Institute for Biomedical Sciences, University of

Strathclyde, Glasgow, G4 ONR, UK

SOURCE: British Journal of Pharmacology (2001),

134(1), 6-9

CODEN: BJPCBM; ISSN: 0007-1188

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal LANGUAGE: English

AB Several different mol. species of phosphatidic acid (PA) bind to a G-protein coupled receptor (GPCR) to induce activation of the p42/p44 mitogen-activated protein kinase (p42/p44 MAPK) pathway in HEK 293 cells. PA is active at low nanomolar concns. and the response is sensitive to pertussis toxin (which uncouples GPCRs from Gi/o). The de-acylated product of PA, lysophosphatidic acid (LPA), which binds to members of the endothelial differentiation gene (EDG) family of receptors also stimulated p42/p44 MAPK in a pertussis toxin sensitive manner, but with an apprx. 100-1000 fold lower potency compared with the different mol. species of PA. RT-PCR using gene-specific primers showed that HEK 293 cells express EDG2 and P5P24, the latter being a lipid binding GPCR out with the EDG cluster. We conclude that PA is a novel high potency GPCR agonist.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 11:25:59 ON 03 JUL 2007

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FILE 'STNGUIDE' ENTERED AT 12:59:51 ON 03 JUL 2007
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PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH FIELD CODE - 'AND' OPERATOR ASSUMED 'L80(S)KIDNEY' PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH FIELD CODE - 'AND' OPERATOR ASSUMED 'L81(S)KIDNEY' PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH FIELD CODE - 'AND' OPERATOR ASSUMED 'L82(S)KIDNEY' PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH FIELD CODE - 'AND' OPERATOR ASSUMED 'L83(S)KIDNEY' 3 L20(S) KIDNEY L21

=> D abs L21 1-3

- L21 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
- Lysophosphatidic acid (LPA), a major member of the bioactive lysophospholipids in serum, possesses diverse physiol. activities including cell proliferation. Recently, three endothelial differentiation gene (EDG) family receptors, including EDG-2 (LPA1), EDG-4 (LPA2), and EDG-7 (LPA3), have been identified as LPA receptors. The role of LPA and their receptors in mesangial cell physiol. is not clearly understood. This study examined the expression profile of EDG receptors as a function of cell d. and the participation of EDG receptors in human mesangial cell proliferation by LPA. We showed that mesangial cells express all three EDG family LPA receptors in a cell d.-dependent manner. EDG-7 maximally expressed at sparse cell d. and minimally expressed in dense cell population. The EDG-2 expression pattern was opposite to the EDG-7. No changes in EDG-4 expression as a function of cell d. were noted. DNA synthetic rate was greater in sparse cell d. compared with dense cell population and followed a similar pattern with EDG-7 expression. Comparative studies in sparse and dense cell d. indicated that EDG-7 was pos. associated, whereas EDG-2 was neg. associated with cell proliferation

rate.

LPA induced mesangial cell proliferation by 1.5- to 3.5-fold. Dioctanoylqlycerol pyrophosphate, an antagonist for EDG-7, almost completely inhibited mesangial cell proliferation induced by LPA. We suggest that EDG-7 regulates LPA-mediated mesangial cell proliferation. Addnl., these data suggest that EDG-7 and EDG-2 LPA receptors play a diverse role as proliferative and antiproliferative, resp., in mesangial cells. Regulation of EDG family receptors may be importantly linked to mesangial cell-proliferative processes.

- L21 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
- RGS proteins finely tune heterotrimeric G-protein signaling. Implying the need for such fine-tuning in the developing vascular system, in situ hybridization revealed a striking and extensive expression pattern of Rqs5 in the arterial walls of E12.5-E17.5 mouse embryos. The distribution and location of the Rgs5-pos. cells typified that of pericytes and strikingly overlapped the known expression pattern of platelet-derived growth factor receptor (PDGFR)-β. Both E14.5 PDGFR-β- and platelet-derived growth factor (PDGF)-B-deficient mice exhibited markedly reduced levels of Rgs5 in their vascular plexa and small arteries. This likely reflects the loss of pericytes in the mutant mice. RGS5 acts as a potent GTPase activating protein for Gia and Gqα and it attenuated angiotensin II-, endothelin-1-, sphingosine-1-phosphate-, and PDGF-induced ERK-2 phosphorylation. Together these results indicate that RGS5 exerts control over PDGFR- β and GPCR-mediated signaling pathways active during fetal vascular maturation.
- L21 ANSWER 3 OF 3 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
- Recently, a family of G-protein-coupled receptors named endothelial AB differentiation gene (Edg) receptor family has been identified, which are specifically activated by the two serum lipids,

sphingosine-1-phosphate and lysophosphatidic acid. Sphingosine-1phosphate can also act intracellularly to release Ca(2+) from intracellular stores. Since in several cell types, G-protein-coupled lysophosphatidic acid or sphingosine-1-phosphate receptors mobilize Ca(2+) in the absence of a measurable phospholipase C stimulation, it was analysed here whether intracellular sphingosine-1-phosphate production was the signalling mechanism used by extracellular sphingosine-1-phosphate for mobilization of stored Ca(2+). Sphingosine-1-phosphate and the low affinity sphingosine-1-phosphate receptor agonist, sphingosylphosphorylcholine, induced a rapid, transient and nearly complete pertussis toxin-sensitive Ca(2+) mobilization in human embryonic kidney (HEK-293) cells. The G-protein-coupled sphingosine-1-phosphate receptors, Edg-1, Edg-3 and Edg-5, were found to be endogenously expressed in these cells. Most interestingly, sphingosine-1-phosphate and sphingosylphosphorylcholine did not induce a measurable production of inositol-1,4,5-trisphosphate or accumulation of inositol phosphates. Instead, sphingosine-1-phosphate and sphingosylphosphorylcholine induced a rapid and transient increase in production of intracellular sphingosine-1-phosphate with a maximum of about 1.4-fold at 30 s. Stimulation of sphingosine-1-phosphate formation by sphingosine-1-phosphate and sphingosylphosphorylcholine was fully blocked by pertussis toxin, indicating that extracellular sphingosine-1-phosphate via endogenously expressed G(i)-coupled receptors induces a stimulation of intracellular sphingosine-1-phosphate production. As sphingosine-1-phosphate- and sphingosylphosphorylcholine-induced increases in intracellular Ca(2+) were blunted by sphingosine kinase inhibitors, this sphingosine-1-phosphate production appears to mediate Ca(2+) signalling by extracellular sphingosine-1-phosphate and sphingosylphosphorylcholine in HEK-293 cells. .COPYRGT. 2001 Elsevier Science B.V.

=> D ibib 121 1-3

AUTHOR(S):

L21 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN 2004:1075963 CAPLUS

ACCESSION NUMBER: DOCUMENT NUMBER:

142:20821

TITLE: Cell density-dependent expression of EDG

family receptors and mesangial cell proliferation: Role in lysophosphatidic acid-mediated cell growth

Xing, Yiding; Ganji, Shobha H.; Noh, Jung W.; Kamanna, Vaiiinath S.

CORPORATE SOURCE: Medical Research Service, Department of Veterans

Affairs Healthcare System, Long Beach, 90822, USA SOURCE: American Journal of Physiology (2004), 287(6, Pt. 2),

F1250-F1257

CODEN: AJPHAP; ISSN: 0002-9513

PUBLISHER: American Physiological Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:212940 CAPLUS

DOCUMENT NUMBER: 139:1403

TITLE: Pericyte-specific expression of RGS5:

implications for PDGF and EDG

receptor signaling during vascular maturation Cho, Hyeseon; Kozasa, Tohru; Bondjers, Cecilia; AUTHOR(S):

Betsholtz, Christer; Kehrl, John H.

CORPORATE SOURCE: National Institute of Allergy and Infectious Diseases,

Lab. of Immunoregulation, National Institute of Allergy and Infectious Diseases, Bethesda, MD,

20892-1876, USA

FASEB Journal (2003), 17(3), 440-442, SOURCE:

10.1096/fj.02-0340fje

CODEN: FAJOEC; ISSN: 0892-6638

Federation of American Societies for Experimental PUBLISHER:

> Biology Journal

DOCUMENT TYPE:

LANGUAGE: English

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ACCESSION NUMBER: 2001084181 EMBASE

TITLE: Stimulation of intracellular sphingosine-1-phosphate

production by G-protein-coupled sphingosine-1-phosphate receptors.

AUTHOR: Meyer zu Heringdorf D.; Lass H.; Kuchar I.; Lipinski M.;

Alemany R.; Rumenapp U.; Jakobs K.H. CORPORATE SOURCE: D. Meyer zu Heringdorf, Institut fur Pharmakologie,

Universitatsklinikum Essen, Hufelandstrasse 55, D-45122

Essen, Germany. meyer-heringdorf@uni-essen.de

SOURCE: European Journal of Pharmacology, (2 Mar 2001) Vol. 414, No. 2-3, pp. 145-154. .

Refs: 36

ISSN: 0014-2999 CODEN: EJPHAZ

PUBLISHER IDENT.: S 0014-2999(01)00789-0

COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 030 Pharmacology 037 Drug Literature Index

LANGUAGE: English SUMMARY LANGUAGE:

English ENTRY DATE: Entered STN: 6 Apr 2001

Last Updated on STN: 6 Apr 2001

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| | | | | and Korean patents enhanced |
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=> S ((lysophophatidic acid OR LPA) OR (EDG receptor)) (S) Mesangial AND pd<=20031211

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L1 55 ((LYSOPHOPHATIDIC ACID OR LPA) OR (EDG RECEPTOR)) (S) MESANGIAL AND PD<=20031211

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ANSWERS '16-19' FROM FILE BIOSIS
ANSWER '20' FROM FILE CAPLUS

ANSWER '21' FROM FILE EMBASE

=> D Thib Abs L2 1-15

L2 ANSWER 1 OF 21 MEDLINE on STN
ACCESSION NUMBER: 2002464486 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12224049

DUPLICATE 1

SINCE FILE

0.21

FILE TOTAL ENTRY SESSION

0.21

TITLE: LPA as a determinant of mesangial

growth and apoptosis.

AUTHOR: Inoue Chivoko N

CORPORATE SOURCE: Department of Pediatrics, Japanese Red Cross Sendai Hospital, Sendai, Japan. cnagano@sendai.jrc.or.jp SOURCE: Seminars in nephrology, (2002 Sep) Vol. 22, No.

5, pp. 415-22. Ref: 38

Journal code: 8110298. ISSN: 0270-9295.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)

General Review; (REVIEW)

General Review; (RE

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200211

ENTRY DATE: Entered STN: 12 Sep 2002

Last Updated on STN: 13 Dec 2002

Entered Medline: 22 Nov 2002

AB Mesangial cell proliferation is a prominent feature of progression in many forms of renal diseases, including immunoglobulin A nephropathy, lupus nephritis, hemolytic uremic syndrome, and diabetic nephropathy. Platelet-derived growth factor (PDGF) has received much attention as the major mediator of mesangial cell proliferation by autocrine/paracrine mechanisms involving up-regulation of mesangial PDGF and its receptor on mesangial cells. In this review, we wish to spotlight lysophosphatidic acid (LPA), which in combination with PDGF, undoubtedly plays a key role as an autocrine and paracrine mediator in regulating mesangial cell growth. We not only showed that PDGF acts as a bimodal molecule for mesangial cells, inducing mesangial cell proliferation and death simultaneously, but also showed that LPA is a survival factor suppressing PDGF-induced mesangial cell death, thereby remarkably enhancing mesangial mitogenic response by PDGF. We believe that a better understanding of the mechanisms of mesangial cell proliferation by the combined action of PDGF and LPA could lead to novel diagnostic as well as therapeutic strategies, and thus help to better

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L2 ANSWER 2 OF 21 MEDLINE on STN ACCESSION NUMBER: 2002390033 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12110510

control proliferative glomerulonephritis.

TITLE: LPA is a novel lipid regulator of

mesangial cell hexokinase activity and HKII isoform expression.

AUTHOR: Coy Platina E; Taneja Navin; Lee Iris; Hecquet Claudie; Bryson Jane M; Robey R Brooks

CORPORATE SOURCE: Section of Nephrology, Department of Medicine, University

of Illinois at Chicago College of Medicine, Chicago,

DUPLICATE 2

Illinois 60612-7315, USA.

SOURCE: American journal of physiology. Renal physiology,

(2002 Aug) Vol. 283, No. 2, pp. F271-9. Journal code: 100901990. ISSN: 0363-6127.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)

(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200208

ENTRY DATE: Entered STN: 26 Jul 2002

Last Updated on STN: 18 Dec 2002

Entered Medline: 8 Aug 2002

The prototypical extracellular phospholipid mediator, lysophosphatidic AB acid (LPA), exhibits growth factor-like properties and represents an important survival factor in serum. This potent mesangial cell mitogen is increased in conditions associated with glomerular injury. It is also a known activator of the classic mitogen-activated protein kinase (MAPK) pathway, which plays an important role in the regulation of mesangial cell hexokinase (HK) activity. To better understand the mechanisms coupling metabolism to injury, we examined the ability of LPA to regulate HK activity and expression in cultured murine mesangial cells. LPA increased total HK activity in a concentration- and time-dependent manner, with maximal increases of >50% observed within 12 h of exposure to LPA concentrations > or =25 microM (apparent ED(50) 2 microM). These effects were associated with increased extracellular signal-regulated kinase (ERK) activity and were prevented by the pharmacological inhibition of either MAPK/ERK kinase or protein kinase C (PKC). Increased HK activity was also associated with increased glucose (Glc) utilization and lactate accumulation, as well as selectively increased HKII isoform abundance. The ability of exogenous LPA to increase HK activity was both Ca2+ independent and pertussis toxin insensitive and was mimicked by LPA-generating phospholipase A2. We conclude that LPA constitutes a novel lipid regulator of mesangial cell HK activity and Glc metabolism. This regulation requires sequential activation of both Ca2+-independent PKC and the classic MAPK pathway and culminates in increased HKII abundance. These previously unrecognized metabolic consequences of LPA stimulation have both physiological and pathophysiological implications. They also suggest a novel mechanism whereby metabolism may be coupled to cellular injury via extracellular lipid mediators.

ANSWER 3 OF 21 MEDLINE on STN DUPLICATE 3

ACCESSION NUMBER: 2002129834 DOCUMENT NUMBER:

CORPORATE SOURCE:

TITLE:

SOURCE:

MEDLINE

PubMed ID: 11829737

Role of Rac and Cdc42 in lysophosphatidic acid-mediated

cyclo-oxygenase-2 gene expression.

AUTHOR: Hahn Angelika; Barth Holger; Kress Michaela; Mertens Peter R; Goppelt-Struebe Margarete

Medizinische Klinik IV, Universitat Erlangen-Nurnberg,

Loschgestr. 8, D-91054 Erlangen, Germany.

The Biochemical journal, (2002 Feb 15) Vol. 362,

No. Pt 1, pp. 33-40.

Journal code: 2984726R, ISSN: 0264-6021.

England: United Kingdom

PUB. COUNTRY: DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200203

ENTRY DATE: Entered STN: 28 Feb 2002

Last Updated on STN: 24 Mar 2002 Entered Medline: 22 Mar 2002

AB The role of Rho proteins in lysophosphatidic acid (LPA)-mediated induction of cvclo-oxygenase-2 (Cox-2) was investigated in renal mesangial cells. Previous studies had shown that toxin B, an inhibitor of Rho, Rac and Cdc42, suppressed Cox-2 induction. A role for RhoA in pertussis toxin-sensitive LPA signalling was excluded with C3 transferase from Clostridium limosum, used as the fusion toxin C2IN-C3 (where C2IN is part of the C2I toxin of C. botulinum). Incubation of the cells with C2IN-C3 disrupted cytosolic actin stress fibres, but had no effect on Cox-2 induction. Similarly, activation of p42/44 mitogen-activated protein kinase (MAP kinase), an upstream step in Cox-2 induction, was inhibited by toxin B, but not affected by C2IN-C3. Upon

treatment with toxin B, focal adhesion kinase and paxillin were dephosphorylated at tyrosine residues and the actin cytoskeleton was completely destroyed. An intact cytoskeleton, however, was not required for p42/44 MAP-kinase activation or Cox-2 induction, as shown by the actin-depolymerizing agent cytochalasin D. Toxin B did not influence functionality of LPA receptors, because G(i)-mediated Ca(2+) release from intracellular stores remained unchanged. Within 1 h, toxin B inactivated and translocated RhoA and Cdc42 to the cellular membranes. Within the same time frame, monoglucosylated Racl was degraded. Direct stimulation of Rho proteins by cytotoxic necrotizing factor type 1 (CNFI) induced Cox-2 expression, which was sensitive to inhibition of the MAP-kinase pathway by PD98059, but not to an inhibitor of RhoA kinase. By exclusion of RhoA and non-specific cytoskeletal effects, the results in the present study indicate an important role for Rac and/or Cdc42 in pertussis toxin-sensitive LPA-mediated Cox-2 induction.

ANSWER 4 OF 21 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 2001347253 MEDLINE

DOCUMENT NUMBER: PubMed ID: 11410109

TITLE: Bimodal effects of platelet-derived growth factor on rat mesangial cell proliferation and death, and the role of

lysophosphatidic acid in cell survival.

AUTHOR: Inoue C N; Nagano I; Ichinohasama R; Asato N; Kondo Y;

Iinuma K

CORPORATE SOURCE: Department of Pediatrics, Tohoku University School of

Medicine, Sendai, Japan.. cnagano@sendai.jrc.or.jp SOURCE: Clinical science (London, England : 1979), (2001

Jul) Vol. 101, No. 1, pp. 11-9.

Journal code: 7905731. ISSN: 0143-5221.
PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200108

ENTRY DATE: Entered STN: 13 Aug 2001

Last Updated on STN: 13 Aug 2001

Entered Medline: 9 Aug 2001

AB Although mesangial cell death has been shown to be correlated with mesangial cell mitosis in vivo, little is known about how these two apparently opposite events are regulated. We show that the addition of platelet-derived growth factor (PDGF: 10-50 ng/ml) to primary cultured rat mesangial cells for 24 h caused continuous proliferation along with simultaneous cell death. This process was accompanied by the fragmentation of DNA into nucleosomal oligomers, the development of apoptotic morphological changes in the nucleus, and increased expression of p53. Accumulation of lactate dehydrogenase (LDH) was also observed in the culture medium, suggesting that both apoptosis and necrosis are involved in the cell death mechanisms observed. We also observed that addition of 30 microM lysophosphatidic acid (LPA) to the culture medium greatly suppressed PDGF-induced cell death, leading to synergistically enhanced mesangial cell proliferation. DNA fragmentation, p53 expression and LDH release were all suppressed by LPA. We suggest that PDGF is a bifunctional molecule in mesangial cells that evokes both cell proliferation and cell death simultaneously, whereas LPA is a survival factor. We speculate that PDGF and LPA may play important roles in the progression or exacerbation of proliferative glomerulonephritis.

L2 ANSWER 5 OF 21 MEDLINE ON STN
ACCESSION NUMBER: 2001078247 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10976101

DUPLICATE 5

TITLE: Induction of connective tissue growth factor by activation

of heptahelical receptors. Modulation by Rho proteins and

the actin cytoskeleton.

AUTHOR: Hahn A; Heusinger-Ribeiro J; Lanz T; Zenkel S;

Goppelt-Struebe M

CORPORATE SOURCE: Medizinische Klinik IV, Universitat Erlangen-Nurnberg,

Loschgestrasse 8, D-91054 Erlangen, Germany.

SOURCE: The Journal of biological chemistry, (2000 Dec 1)

Vol. 275, No. 48, pp. 37429-35. Journal code: 2985121R, ISSN: 0021-9258.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals ENTRY MONTH: 200101

ENTRY DATE: Entered STN: 22 Mar 2001

Last Updated on STN: 22 Mar 2001

Entered Medline: 11 Jan 2001

AB Expression of connective tissue growth factor (CTGF) was induced in renal mesangial cells by activation of heptahelical receptors by serotonin (5-HT) and lysophosphatidic acid (LPA). Induction of

CTGF mRNA was transient with maximal expression after 1 to 2 h. whereas induction of CTGF by transforming growth factor beta (TGF-beta) increased over time. In contrast to the induction of other early response genes (Egr-1 and cyclooxygenase-2), LPA-mediated induction of CTGF was pertussis

toxin-insensitive and independent of p42/44 MAP kinase activation. 5-HT-mediated CTGF induction was due to activation of 5-HT(2A) receptors and likewise independent of p42/44 MAP kinase activation. Upon

stimulation, enhanced levels of CTGF protein were detected in cellular homogenates, whereas no protein was detectable in cell culture

supernatants. Inhibition of proteins of the Rho family by toxin B abrogated basal as well as CTGF expression stimulated by LPA, 5-HT, and TGF-beta. Inhibition of the downstream mediator of RhoA, the Rho kinase by Y-27632 partially reduced induction of CTGF by LPA and TGF-beta. Toxin B not only affected gene expression, but disrupted the actin cytoskeleton similarly as observed after treatment with cytochalasin D. Disassembly of

stimulated CTGF expression. These data indicate that an intact actin cytoskeleton is critical for the expression of CTGF. Elimination of the input of Rho proteins by toxin B, however, was significantly more effective and their effect on CTGF expression thus goes beyond disruption

actin stress fibers by cytochalasin D partially reduced basal and

of the cytoskeleton. These findings thus establish activation of heptahelical receptors coupled to pertussis toxin-insensitive G proteins as a novel signaling pathway to induce CTGF. Proteins of the Rho family and an intact cytoskeleton were identified as critical determinants of

L2 ANSWER 6 OF 21 MEDLINE on STN DUPLICATE 6

ACCESSION NUMBER: 2000429716 MEDLINE PubMed ID: 10945862 DOCUMENT NUMBER:

TITLE: Synergistic stimulation of airway smooth muscle cell mitogenesis.

CTGF expression induced by LPA and 5-HT, and also by TGF-beta.

AUTHOR: Ediger T L; Toews M L

CORPORATE SOURCE: Department of Pharmacology, University of Nebraska Medical

Center, Omaha68198-6260, USA.

SOURCE: The Journal of pharmacology and experimental therapeutics, (2000 Sep) Vol. 294, No. 3, pp. 1076-82.

Journal code: 0376362. ISSN: 0022-3565.

United States PUB. COUNTRY:

Journal; Article; (JOURNAL ARTICLE) DOCUMENT TYPE: (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200009

Entered STN: 22 Sep 2000 ENTRY DATE:

Last Updated on STN: 22 Sep 2000

Entered Medline: 12 Sep 2000

Previous studies showed that human airway smooth muscle (HASM) cells AB treated with lysophosphatidic acid (LPA), a pertussis toxin (PTX)-sensitive G protein-coupled (GPC) mitogen, simultaneously with epidermal growth factor (EGF), a receptor tyrosine kinase (RTK) mitogen, exhibit markedly synergistic stimulation of mitogenesis. We now show that the RTK mitogens basic fibroblast growth factor, insulin-like growth factor-1, insulin, platelet-derived growth factor-AA, and platelet-derived growth factor-BB, as well as transforming growth factor-beta, all induced synergistic stimulation of mitogenesis in the presence of LPA. The PTX-sensitive GPC mitogens carbachol and endothelin-1 and the PTX-insensitive GPC mitogens sphingosine-1-phosphate and thrombin exhibited synergistic stimulation together with EGF. Several RTK-RTK growth factor pairs and GPC-GPC mitogen pairs were also synergistic. HASM cells showed synergistic responses to serum plus EGF but not to serum plus LPA. Testing various other cell types showed that synergism between LPA and EGF occurred in other smooth muscle cells because both vascular smooth muscle cells and mesangial cells exhibited synergism. Additionally, human fetal lung fibroblasts also showed striking synergism. These results indicate that HASM cells can respond synergistically to a wide variety of mitogen combinations and that this

ANSWER 7 OF 21 MEDLINE on STN DUPLICATE 7

ACCESSION NUMBER: 2000088653

SOURCE:

MEDLINE

DOCUMENT NUMBER:

PubMed ID: 10620497

TITLE: The platelet-derived-growth-factor receptor, not the

synergism is a feature shared with other contractile cell types.

epidermal-growth-factor receptor, is used by

lysophosphatidic acid to activate p42/44 mitogen-activated protein kinase and to induce prostaglandin G/H synthase-2

in mesangial cells.

AUTHOR: Goppelt-Struebe M; Fickel S; Reiser C O

CORPORATE SOURCE: Medizinische Klinik IV, Universitat Erlangen-Nurnberg,

Loschgestrasse 8, D-91054 Erlangen, Germany...

Goppelt-Struebe@rzmail.uni-erlangen.de

The Biochemical journal, (2000 Jan 15) Vol. 345

Pt 2, pp. 217-24.

Journal code: 2984726R. ISSN: 0264-6021.

PUB. COUNTRY: ENGLAND: United Kingdom DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English FILE SEGMENT: Priority Journals

ENTRY MONTH: 200003

ENTRY DATE: Entered STN: 14 Mar 2000

Last Updated on STN: 18 Dec 2002

Entered Medline: 2 Mar 2000

In renal mesangial cells, activation of protein tyrosine kinase receptors AB may increase the activity of mitogen-activated protein (MAP) kinases and subsequently induce expression of prostaglandin G/H synthase-2 (PGHS-2, cyclo-oxygenase-2). As examples, platelet-derived growth factor (PDGF) and epidermal growth factor (EGF) were shown to transiently enhance p42/44 MAP kinase activity, which was an essential step in the induction of PGHS-2 mRNA and protein. Inhibitors of receptor kinase activities, tyrphostins AG1296 and AG1478, specifically inhibited the effects of PDGF and EGF respectively. Activation of p42/44 and p38 MAP kinases and PGHS-2 induction were also mediated by lysophosphatidic acid (LPA), which binds

to pertussis-toxin-sensitive G-protein-coupled receptors. LPA stimulation was inhibited by AG1296, but not AG1478, indicating involvement of the PDGF receptor kinase in LPA-mediated signalling. This was confirmed by pertussis-toxin-sensitive tyrosine phosphorylation of the PDGF receptor by LPA, whereas no phosphorylation of the EGF receptor was detected. For comparison, 5-hydroxytryptamine ('serotonin')-mediated signalling was only partially inhibited by AG1296, and also not affected by AG1478. A strong basal AG1296-sensitive tyrosine phosphorylation of the PDGF receptor and a set of other proteins was observed, which by itself was not sufficient to induce p42/44 MAP kinase activation, but played an essential role not only in LPA- but also in phorbol ester-mediated activation. Taken together, the PDGF receptor, but not the EGF receptor, is involved in LPA -mediated MAP kinase activation and PGHS-2 induction in primary mesangial cells, where both protein kinase receptors are present and functionally active.

ANSWER 8 OF 21 MEDLINE on STN DUPLICATE 8 ACCESSION NUMBER: 1999189185 MEDLINE

DOCUMENT NUMBER: PubMed ID: 10087253

TITLE: Lysophosphatidic acid and mesangial cells: implications for

renal diseases.

AUTHOR: Inoue C N; Epstein M; Forster H G; Hotta O; Kondo Y; Iinuma

CORPORATE SOURCE: Department of Pediatrics, Tohoku University School of

Medicine, 1-1 Seiryo-machi, Sendai 980-8574, Japan. Clinical science (London, England: 1979), (1999 SOURCE:

Apr) Vol. 96, No. 4, pp. 431-6. Ref: 40 Journal code: 7905731. ISSN: 0143-5221.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal: Article: (JOURNAL ARTICLE)

General Review; (REVIEW) LANGUAGE: English

FILE SEGMENT: Priority Journals ENTRY MONTH:

199906 ENTRY DATE: Entered STN: 18 Jun 1999

> Last Updated on STN: 18 Jun 1999 Entered Medline: 10 Jun 1999

AB The last decade has witnessed a phenomenal increase in our understanding of the biological role of lysophosphatidic acid (LPA) and has led to an appreciation of this critical serum-derived growth factor released from platelets. We herein summarize recent observations that collectively support the hypothesis that LPA may play a key role in the pathogenesis of initiation and progression of proliferative glomerulonephritis. LPA synergistically stimulates mesangial cell proliferation in combination with platelet-derived growth factor in primary culture. The mechanism of co-mitogenesis is likely to be mediated by the prolonged activation of mitogen-activated protein kinase which is stimulated by platelet-derived growth factor and LPA through different mechanisms. LPA contracts cultured mesangial cells and has properties in common with other pressor molecules including mobilization of intracellular Ca2+ and promotion of Ca2+ entry through dihydropyridine-sensitive calcium channels. LPA receptor mRNA has been identified in isolated glomeruli dissected from renal biopsy samples of patients with IgA nephropathy. All of these facts have led us to postulate that LPA is produced within glomeruli and that LPA's mitogenic as well as haemodynamic action contribute to the pathological process of mesangial proliferative glomerulonephritis. The possible production of LPA as an autocrine factor from mesangial cells themselves has also been discussed.

ACCESSION NUMBER: 1998161785 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9494074

TITLE: Lysophosphatidic acid-mediated signal-transduction pathways involved in the induction of the early-response genes

prostaglandin G/H synthase-2 and Egr-1: a critical role for the mitogen-activated protein kinase p38 and for Rho

proteins.

AUTHOR: Reiser C O; Lanz T; Hofmann F; Hofer G; Rupprecht H D;

Goppelt-Struebe M

CORPORATE SOURCE: Medizinische Klinik IV, Universitat Erlangen-Nurnberg,

Loschgestr. 8, D-91054 Erlangen, Germany.

SOURCE: The Biochemical journal, (1998 Mar 15) Vol. 330 (

Pt 3), pp. 1107-14.

Journal code: 2984726R. ISSN: 0264-6021.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 199805

ENTRY DATE: Entered STN: 29 May 1998

Last Updated on STN: 18 Dec 2002

Entered Medline: 21 May 1998
AB During inflammatory processes of the kidney, le

AB During inflammatory processes of the kidney, lesions of the glomerulus lead to aggregation of thrombocytes and infiltration of macrophages, which can release bioactive mediators. One of these important signalling molecules is lysophosphatidic acid (LPA). Incubation of rat

mesangial cells with LPA induced mRNA and protein expression of the early-response genes pghs-2 (for prostaglandin G/H synthase-2/cyclo-oxygenase-2) and eqr-1. As shown by antisense

experiments, induction of egr-1 was related to the strong mitogenic effect of LPA. LPA-mediated gene expression was inhibited by pertussis toxin, indicating coupling to G-proteins of the Gi family. Specific inhibition of proteins of the small G-protein subfamily Rho with toxin B from Clostridium difficile led to changes in mesangial cell morphology without induction of apoptosis. LPA-mediated expression of pghs-2 and egr-1 was reduced to base-line levels by toxin B, indicating a role for Rho proteins in LPA-mediated gene induction. Of the two mitogen-activated protein kinase (MAPK) pathways investigated, the MAPK kinase-extracellular signal-regulated kinase pathway was involved in the induction of both pghs-2 and egr-1 mRNA expression, as shown by the inhibitory effect of PD98059. Activation of the MAPK p38, however, was only related to pghs-2 expression, whereas egr-1 expression was not affected by treatment of mesangial cells with the specific inhibitor SB203580. Taken together our data provide evidence that LPA-mediated activation of MAPK kinase and Rho

proteins leads to the induction of the functionally distinct early-response genes pghs-2 and egr-1, whereas activation of MAPK p38 revealed considerable differences between the regulation of these two genes.

L2 ANSWER 10 OF 21 MEDLINE on STN DUPLICATE 10

ACCESSION NUMBER: 1997236570 MEDLINE DOCUMENT NUMBER: PubMed ID: 9083266

TITLE: Dual effect of lysophosphatidic acid on proliferation of

glomerular mesangial cells.
AUTHOR: Gaits F; Salles J P; Chap H

CORPORATE SOURCE: Institut Federatif de Recherche en Immunologie Cellulaire

et Moleculaire, Universite Paul Sabatier, Toulouse, France. SOURCE: Kidney international, (1997 Apr) Vol. 51, No. 4,

pp. 1022-7.

Journal code: 0323470, ISSN: 0085-2538,

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T) LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199706

ENTRY DATE: Entered STN: 9 Jul 1997

Last Updated on STN: 6 Feb 1998 Entered Medline: 20 Jun 1997

AB Among the variety of factors able to contribute to mesangial hypertrophy by altering mesangial cell growth, lysophosphatidic acid (LPA) is the focus of increasing attention. It is produced in plasma following platelet activation, as well as by mesangial cells stimulated by secretory phospholipase A2. As mitogenic/antimitogenic

properties of LPA are already described in a variety of cells, knowledge of its specific actions on mesangial cells is of

potential interest regarding the pathophysiology of glomerulus damage in

situ. We tested the effect of LPA on cultured rat mesangial cell growth. At 10 to 20 microM, LPA stimulated

thymidine incorporation as well as phosphorylation of mitogen-activated protein kinases (MAP-kinases) p42-p44 in dose- and time-dependent manner, which demonstrated a positive effect on cell proliferation. However, higher concentrations of LPA (100 microM) were unable to stimulate thymidine incorporation and partly inhibited the proliferative effect as well as p42-p44 phosphorylation evoked by serum. Finally, whereas

lysophosphatidylcholine (10 to 20 microM) was lytic for mesangial cells, no cell lysis could be detected at the highest concentrations of LPA. Taken together, these results suggest that LPA

exerts a dual effect on mesangial cell proliferation, which could be due to activation of distinct specific signaling pathways, in dose-dependent fashion. Specific actions of LPA able to modify

mesangial cell proliferation in a positive or negative manner are also likely to influence the pathophysiological processes involved in the progression of glomerulosclerosis in the kidney.

ANSWER 11 OF 21 MEDLINE on STN DUPLICATE 11 ACCESSION NUMBER: 1998063733 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9402141

TITLE: Lysophosphatidic acid and platelet-derived growth factor synergistically stimulate growth of cultured rat mesangial

cells. AUTHOR:

Inoue C N; Ko Y H; Guggino W B; Forster H G; Epstein M CORPORATE SOURCE: Nephrology Section, VA Medical Center, University of Miami

School of Medicine, Florida 33125, USA, SOURCE:

Proceedings of the Society for Experimental Biology and Medicine. Society for Experimental Biology and Medicine (New York, N.Y.), (1997 Dec) Vol. 216, No. 3, pp.

370-9.

Journal code: 7505892, ISSN: 0037-9727,

United States PUB. COUNTRY: DOCUMENT TYPE:

(COMPARATIVE STUDY)

Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English FILE SEGMENT: Priority Journals

ENTRY MONTH: 199712

ENTRY DATE: Entered STN: 9 Jan 1998

Last Updated on STN: 9 Jan 1998 Entered Medline: 23 Dec 1997

AB Lysophosphatidic acid (LPA) is a structurally simple, platelet-derived phospholipid, capable of eliciting a variety of physiological responses. We have demonstrated previously that LPA elicited a marked contractile response in rat mesangial cells (Inoue CN, Forster

HG, Epstein M. Circ Res 77:888-896, 1995). In the present study, we examined the potential of this vasoactive substance to induce mesangial cell proliferation. Serum-starved quiescent rat mesangial cells were incubated with either LPA or in combination with platelet-derived growth factor (PDGF). DNA synthesis was assessed by [3H]thymidine incorporation after 24 hr, and cell numbers were determined at 0, 4, and 7 days. LPA- (1 nM-30 microM) stimulated mesangial cell DNA synthesis in a dose-dependent manner. The DNA synthesis stimulated by PDGF (1-100 ng/ml) was characterized by a bell-shaped response curve with a maximum at 40 ng/ml PDGF. The ability of LPA (30 microM) to synergize PDGF was observed over the entire range of PDGF concentrations (1-100 ng/ml). Under optimal concentrations of LPA/PDGF (30 microM40 ng/ml, respectively), mesangial cells displayed a 67-fold increase in [3H]thymidine incorporation, and a 1.9-fold (Day 4) and 2.5-fold (Day 7) increase in cell number as compared with that of quiescent mesangial cells. With an in vitro assay with myelin basic protein as the substrate, both LPA and PDGF induced stimulation of mitogen-activated protein (MAP) kinase activity. In addition, LPA augmented PDGF-induced increase in MAP kinase activity. In summary, these results demonstrate that LPA is mitogenic alone and also acts synergistically in combination with PDGF to promote mesangial cell proliferation. We postulate that these actions of LPA have the potential to play a crucial role in the mitogenic response of mesangial cells seen in a wide array of inflammatory and thrombotic glomerular disorders.

ANSWER 12 OF 21 DUPLICATE 12 MEDLINE on STN MEDITNE

ACCESSION NUMBER: 1996027697

DOCUMENT NUMBER: PubMed ID: 7554142

TITLE: Effects of lysophosphatidic acid, a novel lipid mediator,

on cytosolic Ca2+ and contractility in cultured rat

mesangial cells.

Inoue C N; Forster H G; Epstein M AUTHOR:

CORPORATE SOURCE: Nephrology Section, Miami VA Medical Center, FL 33125, USA. SOURCE:

Circulation research, (1995 Nov) Vol. 77, No. 5,

pp. 888-96.

Journal code: 0047103. ISSN: 0009-7330.

PUB. COUNTRY: United States

LANGUAGE:

DOCUMENT TYPE: (COMPARATIVE STUDY)

Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199511

ENTRY DATE: Entered STN: 27 Dec 1995 Last Updated on STN: 3 Feb 1997

Entered Medline: 20 Nov 1995

Lysophosphatidic acid (LPA), the smallest and structurally simplest AB phospholipid, has the potential to modulate cellular signaling in diverse tissues and cell types, including fibroblasts. In the present study, we assessed the effects of LPA on cultured rat glomerular mesangial cells. Quantitative changes of [Ca2+]i in response to LPA were measured in monolayers of mesangial cells loaded with the fluorescent Ca2+ indicator fura 2. LPA (10 nmol/L to 100 mumol/L) increased [Ca2+]i in a dose-dependent manner and evoked inositol trisphosphate formation. LPA (1 mumol/L to 30 mumol/L) also elicited a marked, albeit transient, contractile response in mesangial cells cultured on collagen gel, as assessed by a decrease in cell surface area (CSA). The contraction persisted for 5 minutes (CSA decreased by 31%), whereupon the mesangial cells gradually relaxed with a consequent increase in CSA. Pretreatment of mesangial cells with isradipine (1 mumol/L), a

dihydropyridine-sensitive Ca2+ channel blocker, completely blocked LPA-induced contraction. Isradipine also decreased resting [Ca2+]i levels as well as the peak and the subsequently sustained [Ca2+]i levels induced by LPA, suggesting that the contractile effects of LPA are dependent on Ca2+ entry through voltage-gated Ca2+ channels. Finally, LPA stimulated an increase in both prostaglandin E2 synthesis and cAMP accumulation, indicating that these mediators may modulate the contractile effects of LPA. Our study is the first demonstration that exogenous LPA induces mesangial cell contraction and suggests that the contraction is mediated by mobilization of intracellular Ca2+ by activation of the phosphoinositide cascade as well as by promotion of Ca2+

ANSWER 13 OF 21 MEDLINE on STN DUPLICATE 13

entry across the plasma membrane. ACCESSION NUMBER: 1993158778 MEDLINE DOCUMENT NUMBER: PubMed ID: 8430826

TITLE: Role of mesangial cell in glomerular response to volume and

angiotensin II.

AUTHOR: Blantz R C; Gabbai F B; Tucker B J; Yamamoto T; Wilson C B

CORPORATE SOURCE: Division of Nephrology-Hypertension, University of

California San Diego, La Jolla 92093. DK-28602 (United States NIDDK)

CONTRACT NUMBER: DK-40251 (United States NIDDK)

SOURCE: The American journal of physiology, (1993 Jan)

Vol. 264, No. 1 Pt 2, pp. F158-65.

Journal code: 0370511. ISSN: 0002-9513.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals; Space Life Sciences

ENTRY MONTH: 199303

ENTRY DATE: Entered STN: 26 Mar 1993

Last Updated on STN: 26 Mar 1993

Entered Medline: 5 Mar 1993

AB We have examined the physiological role of the mesangial cell in the regulation of glomerular hemodynamics utilizing mesangial cell lysis by the administration of antithymocyte antibody serum (ATS) 24 h before micropuncture evaluation. Plasma volume expansion (PVE) in normal NaCl-depleted rats increased single-nephron glomerular filtration rate (SNGFR) by 30% because of increases in single-nephron plasma flow (SNPF). whereas glomerular capillary hydrostatic pressure (PG) remained constant. SNGFR did not increase with PVE in NaCl-depleted ATS rats despite increases in SNPF, and PG increased significantly (51 +/- 2 to 67 +/- 3 mmHq) because of afferent arteriolar dilation, whereas efferent resistance remained elevated. Angiotensin II (ANG II) infusion in normal rats decreased SNGFR because of reductions in SNPF and the glomerular ultrafiltration coefficient (LpA), whereas the hydrostatic pressure gradient (delta P) increased. In ATS rats ANG II infusion did not change SNGFR, LpA, or delta P. These in vivo studies suggest that the mesangial cell plays an important role in the regulation of LpA, efferent arteriolar resistance, and the regulation of PG, whereas this cell exerts little effect on the afferent arteriole.

L2 ANSWER 14 OF 21 MEDLINE on STN DUPLICATE 14 MEDITNE

ACCESSION NUMBER: 1986293057 DOCUMENT NUMBER: PubMed ID: 3526892

TITLE: Effect of immunoglobulin depositions of glomerular sialic

acids in patients with IgA nephropathy.

AUTHOR: Tomino Y; Sakai H; Miura M; Suga T; Yagame M; Endoh M;

Nomoto Y

SOURCE: American journal of nephrology, (1986) Vol. 6,

No. 3, pp. 187-92.

Journal code: 8109361. ISSN: 0250-8095.

PUB. COUNTRY: Switzerland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198609

ENTRY DATE: Entered STN: 21 Mar 1990

Last Updated on STN: 21 Mar 1990

Entered Medline: 16 Sep 1986

AB A study of double immunofluorescence-staining of immunoglobulins and sialic acids in the glomeruli from patients with IgA nephropathy is described. Renal biopsy specimens from patients with IgA nephropathy were stained with rhodamine-labeled antihuman IgA, IgG or IgM antisera and then stained with FITC-labeled Limulus polyphemus (LPA), Tricum vulgaris (WGA) or antihuman C3 antisera. Marked positive stainings of IgA and C3 and positive binding of LPA or WGA were observed in the glomerular mesangial areas from patients with IgA nephropathy. LPA or WGA were not bound with glomerular capillary walls from patients with moderate and advanced stages of IgA nephropathy, although depositions of IgA and C3 were markedly observed in such walls. There was a significant inverse correlation between the deposition of IgA and the binding of LPA or WGA in qlomerular capillary walls obtained from these patients with IqA nephropathy. The levels of proteinuria from patients with moderate and advanced stages of IgA nephropathy were significantly higher than those with minimal and slight stages of such disease. It is suggested that the decrease of sialic acids in glomerular capillary walls might be due to a deposition of IqA in some patients with IqA nephropathy. It is concluded that high levels of proteinuria might be due to the decrease of sialic acids in glomerular capillary walls from patients with moderate and advanced stages of IgA nephropathy.

ANSWER 15 OF 21 MEDLINE on STN ACCESSION NUMBER: 1987267592 MEDLINE DOCUMENT NUMBER: PubMed ID: 2886045

TITLE: The glomerular and tubular actions of angiotensin II. AUTHOR: Blantz R C

CONTRACT NUMBER: AM28602 (United States NIADDK)

HL25457 (United States NHLBI) SOURCE: American journal of kidney diseases : the official journal

of the National Kidney Foundation, (1987 Jul)

Vol. 10, No. 1 Suppl 1, pp. 2-6. Ref: 39 Journal code: 8110075. ISSN: 0272-6386.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

General Review; (REVIEW) LANGUAGE: English Priority Journals

FILE SEGMENT: ENTRY MONTH: 198708

Entered STN: 5 Mar 1990 ENTRY DATE:

Last Updated on STN: 3 Feb 1997

Entered Medline: 13 Aug 1987

AB Evidence has accumulated that angiotensin II (AII) exerts multiple influences upon renal function through effects on vascular, glomerular, and tubular structures. Infusion of AII alters glomerular ultrafiltration by decreasing nephron plasma flow, increasing glomerular capillary hydrostatic pressure (PG) and the hydrostatic pressure gradient (delta P) due to increases in both afferent and efferent arteriolar vascular

resistance, and effecting a reduction in the glomerular ultrafiltration coefficient (LpA), the product of glomerular membrane hydraulic conductivity and effective surface area for ultrafiltration. Spontaneous increases in intrarenal AII generation, such as observed in chronic NaCl depletion, also produce reductions in nephron plasma flow, increases in delta P, and major reductions in LpA. Angiotensin-converting enzyme inhibitor and saralasin administration prevent these alterations in plasma flow, delta P, and LpA. These AII-induced alterations in LpA may be mediated by AII effects upon the glomerular mesangial cell since AII receptors are expressed and this cell contracts in vitro in the presence of AII. Multiple studies have shown a positive effect of AII (approximately 10(-11) mol/L) on proximal tubular reabsorption, an effect independent of AII effects on peritubular physical factors. These AII effects upon the proximal tubule are clearly independent of interaction with adrenergic influences. AII also influences other mesangial cell functions such as uptake of macromolecules from the circulation. AII also exerts effects by influencing the functional expression of renal adrenergic activity, as demonstrated by studies with renal nerve stimulation in the presence and absence of angiotensin-converting enzyme inhibitor and saralasin. Inhibition of AII activity also clearly suppresses tubuloglomerular activity and the PG response to alterations in distal tubular flow rates. (ABSTRACT TRUNCATED AT 250 WORDS)

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pd<=20031211
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    ANSWER 1 OF 10
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                                                        DUPLICATE 1
ACCESSION NUMBER: 2002047383
                                  MEDLINE
DOCUMENT NUMBER:
                    PubMed ID: 11775454
TITLE:
                    Critical role of lysophospholipids in the pathophysiology,
                    diagnosis, and management of ovarian cancer.
                    Mills Gordon B; Eder Astrid; Fang Xianjun; Hasegawa Yutaka;
AUTHOR:
                    Mao Muling; Lu Yiling; Tanyi Janos; Tabassam Fazal Hag;
                    Wiener Jon; Lapushin Ruth; Yu Shiangxing; Parrott Jeff A;
                    Compton Tim; Tribley Walter; Fishman David; Stack M Sharon;
                    Gaudette Douglas; Jaffe Robert; Furui Tatsuro; Aoki Junken;
                    Erickson James R
CORPORATE SOURCE:
                    Department of Molecular Therapeutics, MD Anderson Cancer
                    Center, 1515 Holcombe Boulevard, Houston, Texas 77030, USA.
CONTRACT NUMBER:
                    P01 CA64602 (United States NCI)
                    Cancer treatment and research, (2002) Vol. 107,
SOURCE:
                    pp. 259-83. Ref: 89
                    Journal code: 8008541, ISSN: 0927-3042,
PUB. COUNTRY:
                    Netherlands
DOCUMENT TYPE:
                    Journal; Article; (JOURNAL ARTICLE)
                    (RESEARCH SUPPORT, NON-U.S. GOV'T)
                    (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
                    General Review: (REVIEW)
LANGUAGE:
                    English
FILE SEGMENT:
                    Priority Journals
ENTRY MONTH:
ENTRY DATE:
                    Entered STN: 25 Jan 2002
                    Last Updated on STN: 24 Apr 2002
                    Entered Medline: 23 Apr 2002
     Lysophosphatidic acid (LPA), the simplest of
     all phospholipids, exhibits pleiomorphic functions in multiple cell
     lineages. The effects of LPA appear to be mediated by binding
     of LPA to specific members of the endothelial differentiation
     gene (Edg) family of G protein-coupled receptors (GPCR). Edg 2,
     Edg4, and Edg7 are high affinity receptors for LPA,
     and Edg1 may be a low affinity receptor for LPA.
     PSP24 has been shown to be responsive to LPA in Xenopus occytes,
```

however, its role in mammalian cells is unclear. The specific biochemical events initiated by the different Edg receptors, as well as the biological outcomes of activation of the individual receptors, are only beginning to be determined. LPA levels are consistently elevated in the plasma and ascites of ovarian cancer patients, but not in most other epithelial tumors, with the exception of cervix and endometrium, suggesting that LPA may be of particular importance in the pathophysiology of ovarian cancer. In support of this concept, ovarian cancer cells constitutively and inducibly produce high levels of LPA and demonstrate markedly different responses to LPA than normal ovarian surface epithelium. Edg4 and Edg7 levels are consistently increased in malignant ovarian epithelial cells contributing to the aberrant response of ovarian cancer cells to LPA. Edg2 may represent a negative regulatory LPA receptor inducing apoptosis in ovarian cancer cells. increased levels of LPA, altered receptor expression and altered responses to LPA may contribute to the initiation, progression or outcome of ovarian cancer. Over 40% of known drugs target GPCR, making LPA receptors attractive targets for molecular therapeutics. Indeed, using the structure-function relationship of LPA in model systems, we have identified selective Edg2 anatgonists, as well as Edg4 and Edg7 agonists. These lead compounds are being assessed in preclinical model systems. Understanding the mechanisms regulating LPA production, metabolism and function could lead to improved methods for early detection and to new targets for therapy in ovarian cancer.

L2 ANSWER 2 OF 10 MEDLINE on STN

DUPLICATE 2

ACCESSION NUMBER: 2001682485 MEDLINE DOCUMENT NUMBER: PubMed ID: 11728312

TITLE: Regulating c-Ras function. cholesterol depletion affects

caveolin association, GTP loading, and signaling.

AUTHOR: Kranenburg O; Verlaan I; Moolenaar W H

CORPORATE SOURCE: Division of Cellular Biochemistry, The Netherlands Cancer Institute, Center for Biomedical Genetics, Plesmanlaan 121,

1066CX Amsterdam, The Netherlands.

SOURCE: Current biology : CB, (2001 Nov 27) Vol. 11, No.

23, pp. 1880-4.

Journal code: 9107782. ISSN: 0960-9822.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200202

ENTRY DATE: Entered STN: 3 Dec 2001

Last Updated on STN: 14 Feb 2002

Entered Medline: 13 Feb 2002

AB Cholesterol-rich and caveolin-containing microdomains of the plasma membrane, termed "caveolae," have been implicated in signal transduction. However, the role of caveolae in regulating the Ras-MAP kinase cascade is incompletely understood. The mammalian Ras isoforms (H, N, and K) use different membrane anchors to attach to the plasma membrane and thereby may localize to functionally distinct microdomains, which might explain isoform-specific signaling. Here, we show that, in Cos epithelial cells, endogenous K-Ras colocalizes largely with caveolin, whereas N-Ras localizes to both caveolar and noncaveolar subdomains; H-Ras localization was below detection limits. We find that epidermal growth factor (ESF) activates N-Ras but fails to activate K-Ras in these cells. Extraction of cholesterol with methyl-beta-cyclodextrin disrupts complex formation between caveolin and K- and N-Ras and, strikingly, enables EGF to activate both K-Ras and N-Ras. While cholesterol depletion enhances

GTP-loading on total c-Ras, activation of the downstream MEK-MAP kinase cascade by EGF and lysophosphatidic acid but not that by phorbol ester is inhibited. Thus, plasma membrane cholesterol is essential for negative regulation of c-Ras isoforms (complexed to caveolin), as well as for mitogenic signaling downstream of receptor-activated c-Ras.

ANSWER 3 OF 10 MEDLINE on STN DUPLICATE 3

ACCESSION NUMBER: 2000384072 MEDLINE

DOCUMENT NUMBER: PubMed ID: 10891442

TITLE: Sphingosine-1-phosphate and lysophosphatidic acid trigger invasion of primitive hematopoietic cells into stromal cell

layers.

AUTHOR:

Yanai N; Matsui N; Furusawa T; Okubo T; Obinata M CORPORATE SOURCE: Department of Cell Biology, Institute of Development, Aging

and Cancer, Tohoku University, Sendai, Japan. Blood, (2000 Jul 1) Vol. 96, No. 1, pp. 139-44. SOURCE:

Journal code: 7603509. ISSN: 0006-4971.

PUB. COUNTRY: United States DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: Enalish

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

ENTRY MONTH: 200008

ENTRY DATE: Entered STN: 18 Aug 2000

Last Updated on STN: 18 Aug 2000 Entered Medline: 10 Aug 2000

A new primitive hematopoietic cell line (THS119), exhibiting AB Lin(-)/Sca-1(+)/c-Kit(+) a surface phenotype, grew and survived underneath stromal cells (TBR59). The ability of the THS119 cells to invade these stromal cell layers was dependent on the inclusion of serum in the culture medium. This was apparently due to a requirement for lipids contained in serum. Their invasion of the stromal cell layers in serum-free cultures could be triggered by addition of sphingosine-1phosphate (S1P) or lysophosphatidic acid (LPA) and was dependent on both Rho- and Ras-signaling pathways. Between the 2 possible receptors of S1P and LPA, edg-1 and edg-2, expression of edg-2 only was found to be correlated with immaturity and/or

invasive activity of the primitive hematopoietic cells. These results suggest the importance of specific lipids and their specific receptors on the invasive activity of primitive hematopoietic

cells in the hematopoietic microenvironment.

L2 ANSWER 4 OF 10 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 1999287728 MEDLINE

DOCUMENT NUMBER: PubMed ID: 10359601 TITLE: Activation of RhoA by lysophosphatidic acid and Galpha12/13

subunits in neuronal cells: induction of neurite

retraction.

Kranenburg O; Poland M; van Horck F P; Drechsel D; Hall A; AUTHOR:

Moolenaar W H

CORPORATE SOURCE: The Netherlands Cancer Institute, Division of Cellular

Biochemistry, 1066 CX Amsterdam, The Netherlands.

SOURCE: Molecular biology of the cell, (1999 Jun) Vol.

10, No. 6, pp. 1851-7.

Journal code: 9201390. ISSN: 1059-1524.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE . English

Priority Journals FILE SEGMENT:

ENTRY MONTH: 199907 ENTRY DATE: Entered STN: 6 Aug 1999

Last Updated on STN: 20 Apr 2002

Entered Medline: 29 Jul 1999

AR Neuronal cells undergo rapid growth cone collapse, neurite retraction, and cell rounding in response to certain G protein-coupled receptor

agonists such as lysophosphatidic acid (LPA). These shape changes are driven by Rho-mediated contraction of the actomyosin-based cytoskeleton. To date, however, detection of Rho activation has been hampered by the lack of a suitable assay. Furthermore, the nature of the G protein(s) mediating LPA

-induced neurite retraction remains unknown. We have developed a Rho activation assay that is based on the specific binding of active RhoA to its downstream effector Rho-kinase (ROK). A fusion protein of GST and the Rho-binding domain of ROK pulls down activated but not inactive RhoA from cell lysates. Using GST-ROK, we show that in N1E-115 neuronal cells LPA activates endogenous RhoA within 30 s, concomitant with growth cone collapse. Maximal activation occurs after 3 min when neurite retraction is complete and the actin cytoskeleton is fully contracted. LPA-induced RhoA activation is completely inhibited by tyrosine kinase inhibitors (tyrphostin 47 and genistein). Activated Galpha12 and Galpha13 subunits mimic LPA both in activating RhoA and in inducing RhoA-mediated cytoskeletal contraction, thereby preventing neurite outgrowth. We conclude that in neuronal cells, LPA activates RhoA to induce growth cone collapse and neurite retraction through a G12/13-initiated pathway that involves protein-tyrosine kinase

activity. L2 ANSWER 5 OF 10 MEDLINE on STN DUPLICATE 5

ACCESSION NUMBER: 1998338028 MEDLINE DOCUMENT NUMBER: PubMed ID: 9671791

TITLE: Ligand-independent activation of platelet-derived growth

factor receptor is a necessary intermediate in

lysophosphatidic, acid-stimulated mitogenic activity in L

cells.

AUTHOR:

SOURCE:

Herrlich A; Daub H; Knebel A; Herrlich P; Ullrich A;

Schultz G: Gudermann T

CORPORATE SOURCE: Institut fur Pharmakologie, Freie Universitat Berlin,

Thielallee 67-73, 14195 Berlin, Germany... andreas.herrlich@igenfzk.de

Proceedings of the National Academy of Sciences of the

United States of America, (1998 Jul 21) Vol. 95,

No. 15, pp. 8985-90.

Journal code: 7505876, ISSN: 0027-8424. PUB. COUNTRY:

United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199808

ENTRY DATE: Entered STN: 28 Aug 1998

Last Updated on STN: 3 Mar 2000

Entered Medline: 20 Aug 1998

Growth factor-derived mitogenic signals from the cell surface are transmitted to the nucleus via receptor tyrosine kinases (RTKs), the adaptor proteins Shc and Grb2, and a Ras-dependent protein kinase cascade that activates the extracellular signal regulated kinase (ERK) subfamily of mitogen-activated protein kinases. ERKs also are activated by hormones that stimulate G protein-coupled receptors (GPCRs). We report here that, in agreement with previous data, the epidermal growth factor receptor (EGFR) is a signaling intermediate in ERK activation by GPCRs. Of import, we show that cross-talk between two classes of surface receptors, RTKs and GPCRs, is a general

feature. Lysophosphatidic acid not only induces ligand-independent tyrosine autophosphorylation of EGFR but also of platelet-derived growth factor beta receptor (PDGF-beta-R) as shown by detection of tyrosine phosphorylation and by the use of specific inhibitors of RTKs. The cross-talk appears to be cell type-specific: In L cells that lack EGFR, lysophosphatidic acid-induced Shc and ERK activation is prevented completely by specific inhibition of PDGFR, whereas in COS-7 cells expressing only EGFR, the pathway via EGFR is chosen. In Rat-1 cells, however, that express both EGFR and PDGFR, the EGFR pathway dominates.

ANSWER 6 OF 10 MEDLINE on STN DUPLICATE 6

ACCESSION NUMBER: 1998300465 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9636836

TITLE: Malignant effusions contain lysophosphatidic acid

(LPA)-like activity.

Westermann A M; Havik E; Postma F R; Beijnen J H; Dalesio AUTHOR:

O; Moolenaar W H; Rodenhuis S

CORPORATE SOURCE: Department of Medical Oncology, The Netherlands Cancer Institute, Amsterdam, The Netherlands.. annie@nki.nl

Annals of oncology: official journal of the European Society for Medical Oncology / ESMO, (1998 Apr) SOURCE:

Vol. 9, No. 4, pp. 437-42.

Journal code: 9007735, ISSN: 0923-7534.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: (COMPARATIVE STUDY)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199809

ENTRY DATE: Entered STN: 17 Sep 1998

Last Updated on STN: 17 Sep 1998 Entered Medline: 10 Sep 1998

BACKGROUND: Lysophosphatidic acid (LPA) and AB

sphingosine-1-phosphate (S1P) are bioactive phospholipids with mitogenic and growth factor-like activities that act via specific cell-surface receptors present in many normal and transformed cell types. LPA has recently been implicated as a growth factor present in ascites of ovarian cancer patients. The presence of LPA-like activity and the hypothesis that levels of this bioactivity in effusions of ovarian cancer patients are higher than those in effusions of other cancer patients was studied. MATERIALS AND METHODS: A neurite retraction bioassay in a neuroblastoma cell line previously developed for in vitro detection of LPA activity on cell lines was employed and bioactivity was expressed in virtual LPA-equivalent levels. LPA-equivalent levels were tested in effusions of 62 patients with a range of malignancies, including 13 ovarian cancer patients. Biochemical and clinical parameters were evaluated for correlations with LPA-equivalent levels. RESULTS: Average LPA-equivalent levels were 50.2 microns (range 5.4-200) for all patients, and 94.5 microns (range 15-200) for ovarian cancer patients (P = 0.004). There were no additional independent significant correlations between LPA-equivalent levels in effusions and a range of other biochemical and clinical characteristics. CONCLUSION: These data suggest a role for LPA-like lipids in the peritoneal spread of ovarian cancer and possibly that of other predominantly intraperitoneal malignancies.

L2 ANSWER 7 OF 10 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN ACCESSION NUMBER: 2003:55169 BIOSIS DOCUMENT NUMBER: PREV200300055169

TITLE: Methods for detecting compounds which modulate the activity of an LPA receptor.

AUTHOR(S): Erickson, James [Inventor, Reprint Author]; Goddard, J.

Graham [Inventor]; Kiefer, Michael [Inventor]

CORPORATE SOURCE: El Cerrito, CA, USA

ASSIGNEE: Atairgin Technologies, Inc.

PATENT INFORMATION: US 6485922 20021126

Official Gazette of the United States Patent and Trademark SOURCE:

Office Patents, (Nov 26 2002) Vol. 1264, No. 4.

http://www.uspto.gov/web/menu/patdata.html. e-file.

ISSN: 0098-1133 (ISSN print).

DOCUMENT TYPE: Patent LANGUAGE: English

ENTRY DATE: Entered STN: 22 Jan 2003

Last Updated on STN: 22 Jan 2003

The present invention provides novel methods for identifying and

characterizing compounds that modulate the activity of an LPA receptor.

ANSWER 8 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:293827 CAPLUS

DOCUMENT NUMBER: 136:321269

TITLE: Human testis phosphatidic acid-specific phospholipase Al cDNAs and uses in drug screening, diagnosis, and

therapy

INVENTOR(S): Arai, Hirovuki; Aoki, Junken

PATENT ASSIGNEE(S): Mochida Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 60 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PA | TENT | | | | KIN | D | DATE | | | | ICAT | | | | D. | ATE | |
|---------|-------|------|------|-----|-----|-----|------|------|-----|------|------|------|-----|-----|-----|------|-------|
| WO | | | | | A1 | | | | | | | | | | 2 | 0010 | 820 < |
| | W: | | | | | | AU, | | | | | | | | | | |
| | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FI, | GB, | GD, | GE, | GH, |
| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, | LK, | LR, |
| | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | PH, | PL, |
| | | PT, | RO, | RU, | SD, | SE, | SG, | SI, | SK, | SL, | ΤJ, | TM, | TR, | TT, | TZ, | UA, | UG, |
| | | US, | UZ, | VN, | YU, | ZA, | ZW | | | | | | | | | | |
| | RW: | GH, | GM, | KΕ, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZW, | ΑT, | BE, | CH, | CY, |
| | | DE, | DK, | ES, | FΙ, | FR, | GB, | GR, | ΙE, | ΙT, | LU, | MC, | NL, | PT, | SE, | TR, | BF, |
| | | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG | |
| AU | 2001 | 0787 | 73 | | A | | 2002 | 0422 | | AU 2 | 001- | 7877 | 3 | | 2 | 0010 | 820 < |
| | | | | | | | | | | | | | | | | | 820 < |
| EP | 1329 | 501 | | | A1 | | 2003 | 0723 | | EP 2 | 001- | 9569 | 58 | | 2 | 0010 | 820 < |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | ΙE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR | | | | | | |
| US | 2004 | 0253 | 221 | | A1 | | 2004 | 1216 | | US 2 | 003- | 3988 | 69 | | 2 | 0030 | 818 |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | JP 2 | 000- | 3110 | 15 | | A 2 | 0001 | 011 |
| | | | | | | | | | | WO 2 | 001- | JP71 | 06 | | W 2 | 0010 | 820 |

A novel phospholipase A1 (PLA1) from human having a substrate specificity AB to phosphatidic acid (PA); a cDNA encoding it; recombinant expression; antibodies; and use in drug screening, diagnosis, and therapy; are disclosed. Cloning and expression of phosphatidic acid-specific phospholipase Al cDNAs is reported. The open reading frames encoded an 460 and 481-amino acid proteins. The sequence included a region similar to a lipase consensus sequence containing the putative catalytic triad and also included a potential asparagine glycosylation sites. Expression in Sf9 cells resulted in detection of phosphatidic acid phospholipase Al activity. Northern blot anal, revealed the highest

overall expression levels in testis. It catalyzes hydrolysis of PA to produce lysophosphatidic acid (LPA). Its

role in 2-acyl LPA specific receptor EDG7 mediated

signaling was observed

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:123078 CAPLUS

DOCUMENT NUMBER: 136:162384

TITLE: Haplotypes and genotyping of the human EDG4 gene encoding endothelial differentiation lysophosphatidic

acid G protein-coupled receptor 4

INVENTOR(S): Kazemi, Amir; Koshy, Beena; Sanchis, Angela

PATENT ASSIGNEE(S): Genaissance Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

| PA | TENT | | | | KIN | D | DATE | | | | ICAT | | | | D | ATE | |
|---------|-------|------|------|-----|-----|-----|------|------|-----|------|------|------|-----|-----|-----|------|-------|
| | 2002 | 0123 | 42 | | A2 | | 2002 | | | | 001- | | | | 2 | 0010 | 806 < |
| WO | 2002 | | | | | | 2003 | | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, |
| | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FI, | GB, | GD, | GE, | GH, |
| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, | LK, | LR, |
| | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | PL, | PT, |
| | | RO, | RU, | SD, | SE, | SG, | SI, | SK, | SL, | TJ, | TM, | TR, | TT, | TZ, | UA, | UG, | US, |
| | | UZ, | VN, | YU, | ZA, | ZW | | | | | | | | | | | |
| | RW: | GH, | GM, | KΕ, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZW, | AM, | ΑZ, | BY, | KG, |
| | | KZ, | MD, | RU, | TJ, | TM, | AT, | BE, | CH, | CY, | DE, | DK, | ES, | FI, | FR, | GB, | GR, |
| | | IE, | IT, | LU, | MC, | NL, | PT, | SE, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, |
| | | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | | | | | | | |
| AU | 2001 | 0847 | 32 | | A | | 2002 | 0218 | | AU 2 | 001- | 8473 | 2 | | 2 | 0010 | 806 < |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | US 2 | 000- | 2231 | 77P | | P 2 | 0000 | 804 |

WO 2001-US24649 W 20010806 Novel single nucleotide polymorphisms in the human endothelial differentiation lysophosphatidic acid G protein-coupled receptor 4 (EDG4) gene are described. Eight novel polymorphic sites and 8 isogenes are discovered by characterizing the EDG4 gene found in genomic DNAs isolated from an Index Repository that contains immortalized cell lines from one chimpanzee and 93 human individuals self-identified as belonging to one of the four major population groups. To the extent possible, the members of this reference population were organized into population subgroups by the self-identified ethnogeog. origin of their four grandparents. Three polymorphic sites are identified in the coding region of EDG4, resulting in a single polymorphic position in the protein. In addition, various genotypes, haplotypes and haplotype pairs for the EDG4 gene that exist in the population are described. Compns. and methods for haplotyping and/or genotyping the EDG4 gene in an individual are also disclosed. Polynucleotides containing one or more of the EDG4 polymorphisms disclosed

L2 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:31636 CAPLUS DOCUMENT NUMBER: 136:81954

herein are also described.

TITLE: Human phosphatidic acid-preferring phospholipase Al INVENTOR(S): Inoue, Keizo; Arai, Hiroyuki; Aoki, Junken

PATENT ASSIGNEE(S): Mochida Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE WO 2002002762 A1 20020110 WO 2000-JP4441 20000703 <--W: CA, JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

A1 20020110 CA 2000-2416191 20000703 <--A1 20030402 EP 2000-942470 20000703 <--CA 2416191 EP 1298205 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

US 20070202520 A1 20070830 US 2007-652080 PRIORITY APPLN. INFO.: 20070111 US 2007-652080 20070111 WO 2000-JP4441 W 20000703 US 2003-311974 B1 20030430

A novel phospholipase Al (PLA1) from human having a substrate specificity to phosphatidic acid (PA); a cDNA encoding it; recombinant expression; antibodies; and use in drug screening, diagnosis, and therapy; are disclosed. The mol. cloning and expression of a phosphatidic acid-specific phospholipase Al (colon lipase) cDNA is reported. The open reading frame encoded an 451-amino acid protein. The sequence included a region similar to a lipase consensus sequence containing the putative catalytic triad and also included a potential glycosylation sites. Expression in Sf9 cells resulted in detection of phosphatidic acid phospholipase Al activity mostly in membrane fraction. Northern blot anal. revealed the highest overall expression levels in lung, kidney, spleen, prostate, testis, ovary, and rectum. It catalyzes hydrolysis of PA to produce 2-acvl lysophosphatidic acid (

LPA) and has affinity for heparin. Its role in 2-acyl LPA

specific receptor EDG7 mediated signaling was observed REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> Log Off H

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 14:06:13 ON 09 OCT 2008

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

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(FILE 'HOME' ENTERED AT 13:47:10 ON 09 OCT 2008)

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 13:47:30 ON 09 OCT 2008
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L2 10 DUP REM L1 (13 DUPLICATES REMOVED)

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PROCESSING COMPLETED FOR L3

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ANSWERS '1-2' FROM FILE MEDLINE

ANSWERS '3-4' FROM FILE BIOSIS

ANSWERS '5-11' FROM FILE CAPLUS

=> D IBIB Abs L4 1-11

L4 ANSWER 1 OF 11 MEDLINE on STN DUPLICATE 1

ACCESSION NUMBER: 2003561612 MEDLINE DOCUMENT NUMBER: PubMed ID: 14649475

TITLE: Bacterial antigen detection test in meningitis.

AUTHOR: Das B K; Gurubacharya Rajesh Lal; Mohapatra T M; Mishra O P CORPORATE SOURCE: Department of Pediatrics, Institute of Medical Sciences,

Banaras Hindu University, Varanasi, India.
SOURCE: Indian journal of pediatrics, (2003 Oct) Vol. 70,

No. 10, pp. 799-801.

Journal code: 0417442. ISSN: 0019-5456.

PUB. COUNTRY: India

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200401

ENTRY DATE: Entered STN: 16 Dec 2003

Last Updated on STN: 30 Jan 2004 Entered Medline: 29 Jan 2004

AB OBJECTIVE: To evaluate the role of bacterial antigen detection test in cerebrospinal fluid (CSF) for a rapid etiological diagnosis of bacterial meningitis. METHODS: The study included 36 cases of bacterial meningitis and 14 controls. Latex particle agglutination test (LPA test) for detection of bacterial antigen was done in the CSF using slidex meningitis kit (Biomeriux, France). RESULTS: Using LPA test, an etiological diagnosis could be made in 83% cases of bacterial meningitis. In contrast, CSF Gram stain and culture showed 36% and 6% positivity, respectively. The sensitivity and specificity of LPA test were 83% and 100%, respectively. The common etiological organisms were S. pneumoniae, H. influenzae type b and N. meningitidis A. S. pneumoniae was encountered in all age groups while H. influenzae type b was found only below one year of age. CONCLUSIONS: LPA test is a rapid and superior diagnostic tool as

compared to CSF Gram stain and culture. The study recommends LPA test as an adjunct laboratory test for rapid etiological diagnosis of bacterial meningitis for prompt institution of proper antibiotics.

4 ANSWER 2 OF 11 MEDLINE on STN DUPLICATE 2

ACCESSION NUMBER: 1993107274 MEDLINE DOCUMENT NUMBER: PubMed ID: 8417036

TITLE: Comparison of two antigen assays for rapid intrapartum

detection of vaginal group B streptococcal colonization.

AUTHOR: Green M; Dashefsky B; Wald E R; Laifer S; Harger J; Guthrie

niok.

CORPORATE SOURCE: University of Pittsburgh School of Medicine, Department of

Pediatrics, Pennsylvania.
SOURCE: Journal of clinical micro

SOURCE: Journal of clinical microbiology, (1993 Jan) Vol.

31, No. 1, pp. 78-82. Journal code: 7505564. ISSN: 0095-1137.

PUB. COUNTRY: United States

DOCUMENT TYPE: (COMPARATIVE STUDY)

Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199301

ENTRY DATE: Entered STN: 12 Feb 1993 Last Updated on STN: 12 Feb 1993

Entered Medline: 22 Jan 1993

AB As part of a clinical investigation evaluating the efficacy of intrapartum antique detection for screening for heavy vaginal colonization with group B streptococci (GBS), we compared the performance of modified Bactigen and Divertions GBS later particle acquiringtion (GBS).

B streptococci (GBS), we compared the performance of modified Bactigen and Directigen GBS latex particle agglutination (LPA) kits

Paired vaginal swabs obtained from women in labor were rapidly transported to the laboratory and used for culturing (both swabs) and LPA

testing (one swab by each method). GBS growth was estimated

semiquantitatively and further designated as light or heavy growth. Performance specifications for each method were determined by comparing LPA and culture results from the same swab. A total of 4,251 paired swabs were evaluated during the study period. The performance specifications for detecting GBS growth of any degree for Bactigen and Directigen,

respectively, were as follows: sensitivity, 20 and 24%; specificity, 99 and 99%. The performance specifications for heavy colonization for Bactigen and Directigen, respectively, were as follows: sensitivity, 57 and 62%; specificity, 99 and 99%. Neither LPA kit was

a sensitive indicator of vaginal colonization with GBS or neonatal infection.

L4 ANSWER 3 OF 11 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN ACCESSION NUMBER: 2003:6582 BIOSIS

DOCUMENT NUMBER: PREV200300006582

TITLE: Recombinant lysophosphatidic acid phosphatase.

AUTHOR(S): Takenawa, Tadaomi [Inventor, Reprint Author]; Hiroyama,
Masami [Inventor]; Kishimoto, Tatsuya [Inventor];

Yamaguchi, Masahiro [Inventor]; Toyosato, Mitsuyoshi

[Inventor]; Mizuno, Kouji [Inventor]

CORPORATE SOURCE: Tokyo, Japan

ASSIGNEE: Azwell Inc., Osaka, Japan

PATENT INFORMATION: US 6472193 20021029

SOURCE: Official Gazette of the United States Patent and Trademark

Office Patents, (Oct 29 2002) Vol. 1263, No. 5. http://www.uspto.gov/web/menu/patdata.html. e-file.

ISSN: 0098-1133 (ISSN print).

DOCUMENT TYPE: Patent LANGUAGE: English

ENTRY DATE: Entered STN: 18 Dec 2002

Last Updated on STN: 18 Dec 2002

An object of the present invention is to provide a recombinant LPA phosphates capable of specifically hydrolyzing LPA, which is useful for elucidation of the metabolic pathway of LPA, and also for diagnosis and treatment of various diseases with which LPA is associated. The present invention also provides for a method capable of simply and inexpensively determining LPA associated with various diseases. The present invention also provides for a kit for determination suitable for the method. The present invention has succeeded in purifying the LPA phosphatase using bovine brain as a raw material, and further in cloning human LPA phosphatase gene. The present invention specifically relates to a DNA encoding a peptide comprising the amino acid sequence of SEQ ID NO:1; a DNA comprising the nucleotide sequence of SEQ ID NO:2; a protein encoded by the DNA; and expression vector carrying the DNA; a transformant harboring the expression vector; a method for producing a recombinant lysophosphatidic acid phosphatase by the transformant; a method for determination of LPA by the protein; a determination reagent for LPA by the protein; a kit for diagnosis, comprising the reagent for determination, and the like.

ANSWER 4 OF 11 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:369768 BIOSIS

PREV200200369768 DOCUMENT NUMBER:

TITLE: Dyslipidemia among type-2 diabetic and hypertensive Nepalese: Implication of measuring serum lipoprotein(a). AUTHOR(S): Lamsal, Madhab [Reprint author]; Baral, Nirmal [Reprint

author]; Sharma, Sanjeeb K.

CORPORATE SOURCE: Department of Biochemistry, BP.Koirala Institute of Health

Sciences, Ghopa, Dharan, Sunsari, 18, Nepal SOURCE:

FASEB Journal, (March 22, 2002) Vol. 16, No. 5,

pp. A908-A909. print.

Meeting Info.: Annual Meeting of Professional Research

Scientists on Experimental Biology, New Orleans, Louisiana, USA. April 20-24, 2002.

CODEN: FAJOEC. ISSN: 0892-6638.

Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

DOCUMENT TYPE:

ENTRY DATE: Entered STN: 3 Jul 2002

Last Updated on STN: 3 Jul 2002

Dyslipidemia along with increased lipoprotein(a)(Lpa) among the type-2 diabetics (DM) and hypertensive (HTN) are of great health concern for the higher prevalence of coronary heart disease(CHD) as compared to non-diabetic, normotensive subjects. Although data are insufficient, CHD is speculatively higher among Nepalese. 225 recently diagoned cases(DM=80, HTN=97, DM+HTN=48) and 112 healthy controls from hill and plain castes were included in this study. Serum total cholesterol(TC), triglyceride(TG), HDL-cholesterol(HDL) were estimated using automated analyser. LDL-cholesterol(LDL) was calculated using Friedewald formula. LPa level was determined by ELISA kits from Innogenetics, Ghent, Belgium. Statistical analysis was done using SPSS.6 package. Significantly raised levels in TC(mg/dl) and LDL(mg/dl) were found among the DM females (hill 206+-39.04 and 136.3+-34.14; plain 203.23+-35.02 and 135.4+-32.33 respectively) as compared to the controls (136+-23.01 and 76.3+-24.01). The mean Lpa level was higher in patient groups(>36mg/d1,P<0.05) as compared to he control(22.5 mg/d1) showing

L4 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2003:301221 CAPLUS DOCUMENT NUMBER: 138:316758

higher risk of CHD in these categories.

TITLE:

Human plasma lysophospholipase D, a lysophosphatidic acid-producing enzyme, as autotaxin, a multifunctional phosphodiesterase, and use in diagnosis, therapy, and drug screening

INVENTOR(S): Tokumura, Akira; Majima, Eiji

Japanese

PATENT ASSIGNEE(S): Apro Life Science Institute, Inc., Japan

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE WO 2003031615 A1 20030417 WO 2002-JP10342 20021003 <--W: AE, AG, AL, AM, AU, AZ, BA, BB, BR, BY, BZ, CA, CN, CO, CR, CU, DM, DZ, EC, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NO, NZ, OM, PH, PL, RO, RW: GA, SI, TJ, TM, TM, TT, UA, US, UZ, VC, VN, YT, ZA
RW: GH, GM, KE, LS, MM, MZ, SD, SI, SZ, TZ, UG, ZM, ZM, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, GH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2002362630 A1 20030422 AU 2002-362630 20021003 <--AD 2002-32230 20021003 JP 2001-309181 A 20011004 JP 2002-241043 A 20020821 WO 2002-JP10342 W 20021003 PRIORITY APPLN. INFO.:

AB Human plasma lysophospholipase D, previously known as autotaxin, and use in screening its inhibitors for diagnosis of cancer, male reproductive disorders, female reproductive disorders, arteriosclerosis, and pregnancy toxemia (gestational toxicosis), are disclosed. Kits for diagnosis or drug screening are claimed. Use of antibodies as inhibitors is claimed. ATP, p-nitrophenyl 5'-thymidine phosphate. The authors purified human plasma lysophospholipase D that produces physiol. active lysophosphatidic acid and showed that it is a soluble form of autotaxin, an ecto-nucleotide pyrophosphatase/phosphodiesterase, originally found as a tumor cell motility-stimulating factor. Its lower Km value for a lysophosphatidylcholine than that for a synthetic substrate of nucleotide suggests that lysophosphatidylcholine is a more likely physiol. substrate for autotaxin and that its predicted physiol, and pathophysiol, functions could be mediated by its activity to produce lysophosphate acid, an intercellular mediator. Recombinant autotaxin was found to have lysophospholipase D activity; its substrate specificity and metal ion requirement were the same as those of the purified plasma enzyme. The activity of lysophospholipase D for exogenous lysophosphatidylcholine in human serum was found to increase in normal pregnant women at the third trimester of pregnancy and to a higher extent in patients in threatened preterm delivery, suggesting its roles in induction of parturition. REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L4 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN
                       2002:123078 CAPLUS
ACCESSION NUMBER:
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136:162384 DOCUMENT NUMBER:

TITLE: Haplotypes and genotyping of the human EDG4 gene encoding endothelial differentiation lysophosphatidic

acid G protein-coupled receptor 4 INVENTOR(S): Kazemi, Amir; Koshy, Beena; Sanchis, Angela PATENT ASSIGNEE(S): Genaissance Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

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PATENT NO.
                     KIND DATE APPLICATION NO. DATE
                                                                    _____
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    WO 2002012342 A2 20020214 WO 2001-US24649 20010806 <--- WO 2002012342 A3 20030828
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
             KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NI, FT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2001084732 A 20020218
                                           AU 2001-84732
                                                                     20010806 <--
                                            AU 2001-84732 20010806
US 2000-223177P P 20000804
WO 2001-US24649 W 20010806
PRIORITY APPLN. INFO.:
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Novel single nucleotide polymorphisms in the human endothelial differentiation lysophosphatidic acid G protein-coupled receptor 4 (EDG4) gene are described. Eight novel polymorphic sites and 8 isogenes are discovered by characterizing the EDG4 gene found in genomic DNAs isolated from an Index Repository that contains immortalized cell lines from one chimpanzee and 93 human individuals self-identified as belonging to one of the four major population groups. To the extent possible, the members of this reference population were organized into population subgroups by the self-identified ethnogeog, origin of their four grandparents. Three polymorphic sites are identified in the coding region of EDG4, resulting in a single polymorphic position in the protein. In addition, various genotypes, haplotypes and haplotype pairs for the EDG4 gene that exist in the population are described. Compns. and methods for haplotyping and/or genotyping the EDG4 gene in an individual are also disclosed. Polynucleotides containing one or more of the EDG4 polymorphisms disclosed

L4 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN 2001:338752 CAPLUS

herein are also described. ACCESSION NUMBER:

DOCUMENT NUMBER: 134:337920

TITLE: Improved automated LPA assay and methods of detecting

cancer

INVENTOR(S): Russell, John C.; Granados, Edward N. PATENT ASSIGNEE(S):

Abbott Laboratories, USA PCT Int. Appl., 49 pp. SOURCE:

CODEN: PIXXD2 Patent

DOCUMENT TYPE: LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PAT | TENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION I | NO. | | D | ATE | | |
|-----|------|------|-----|-----|-----|-----|------|------|-----|------|------|-------|-----|-----|-----|------|-------|--|
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| WO | 2001 | 0329 | 16 | | A2 | | 2001 | 0510 | | WO 2 | 000- | US30: | 280 | | 2 | 0001 | 102 < | |
| WO | 2001 | 0329 | 16 | | A3 | | 2002 | 0711 | | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | BZ, | CA, | CH, | CN, | |
| | | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EE, | ES, | FΙ, | GB, | GD, | GE, | GH, | GM, | HR, | |
| | | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, | LK, | LR, | LS, | LT, | |
| | | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | PL, | PT, | RO, | RU, | |
| | | SD, | SE, | SG, | SI, | SK, | SL, | TJ, | TM, | TR, | TT, | TZ, | UA, | UG, | UZ, | VN, | YU, | |

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ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
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             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2389832
                         A1
                               20010510 CA 2000-2389832
                                                                   20001102 <--
     EP 1238099
                         A2
                               20020911
                                          EP 2000-976865
                                                                   20001102 <--
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                         Т
     JP 2003530081
                               20031014
                                           JP 2001-535596
                                                                   20001102 <--
PRIORITY APPLN. INFO .:
                                            US 1999-163534P
                                                                P 19991104
                                            WO 2000-US30280
                                                               W 20001102
    The present invention relates to an improved enzymic diagnostic assay to
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detect carcinoma by measuring various lysophospholipids, including lysophosphatidic acid (LPA), in a patient. In a preferred embodiment, this assay measures the human plasma level of LPA in an automated format with a minimal number of reagents and with reduced incubation periods. The present invention also comprises several addnl. tech. improvements to the current LPA assays disclosed in the prior art.

ANSWER 8 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:480634 CAPLUS

DOCUMENT NUMBER: 135:43112

TITLE: Disease conditions by measuring lysophosphatidic acid INVENTOR(S): Small, Christopher L.; Parrott, Jeff A.; Xu, Liang

Shong

PATENT ASSIGNEE(S): Atairgin Technologies, Inc., USA SOURCE: U.S., 15 pp., Cont.-in-part of U.S. 6,248,553.

CODEN: USXXAM

DOCUMENT TYPE: Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-------------------|------------|
| | | | | |
| US 6255063 | B1 | 20010703 | US 1999-314780 | 19990519 < |
| US 6248553 | B1 | 20010619 | US 1998-176813 | 19981022 < |
| US 20020004213 | A1 | 20020110 | US 2001-897469 | 20010702 < |
| PRIORITY APPLN. INFO.: | | | US 1998-176813 A | 2 19981022 |
| | | | US 1999-314780 A: | 19990519 |

The present invention is an enzymic method and diagnostic kits for detecting and quantifying the presence of one or more lysophospholipids in a sample of bodily fluid taken from a test subject. The method uses enzymes in a two step assay and may be used to detect disease conditions associated with altered levels of lysophospholipids and to correlate such conditions with altered levels of lysophospholipids.

REFERENCE COUNT: THERE ARE 82 CITED REFERENCES AVAILABLE FOR THIS 82 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

2000:368605 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 133:27360

TITLE: Recombinant human lysophosphatidic acid phosphatase

and lysophosphatidic acid assay INVENTOR(S):

Takenawa, Tadaomi; Hiroyama, Masami; Kishimoto, Tatsuya; Yamaguchi, Masahiro; Toyosato, Mitsuyoshi;

Mizuno, Kouji PATENT ASSIGNEE(S): Azwell Inc., Japan

SOURCE: PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

| PATENT NO. | KIND | DATE APPLICATION NO. DATE |
|---|---|--|
| | | 20000602 WO 1999-JP4509 19990823 < |
| W: JP, US
RW: AT, BE, CH, | CY, DE | , DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, |
| PT, SE
EP 1050584 | A1 | 20001108 EP 1999-938570 19990823 < |
| R: AT, BE, CH, | DE, DK | 20061018
, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, |
| US 6472193
US 20030104600 | B1
A1 | 20021029 US 2000-600588 20000911 <
20030605 US 2002-213100 20020807 < |
| PRIORITY APPLN. INFO.: | B2 | , ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, 20021029 US 2000-600588 20000911 < 20030605 US 2002-213100 20020807 < JP 1998-329866 A 19981119 WO 1999-JP4509 W 19990823 US 2000-600588 A3 20000911 |
| Antibodies to the e
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including a putativ
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diagnosing and trea | nzyme, LPAP g id (LPA deduce e signa ally at man pro in E. c tive si ng the ther ph idyl ch eful in ting va | ctor and a transformant; are also claimed. antisense DNA or RNA, and primers and probes ene are also claimed. A cDNA encoding) phosphatase (LPAP) was cloned from human. The d from the cDNA encoding LPAP had 421 residues 1 peptide and was homologous to acid the active site. Human LPAP also had 28.5% amine static acid phosphatase. GST-LPAP fusion oli showed similar LPA phosphatase activity with gnal peptide. A method and reagents for enzyme was developed to detect LPA specifically ospholipide like PA, phosphatidyl ethanolamine oline (LPC). The method and compns. of this clarifying the LPA metabolic pathway and rious diseases in which LPA participates. HEREE ARE GCITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT |
| ACCESSION NUMBER: DOCUMENT NUMBER: TITLE: INVENIOR(S): PATENT ASSIGNEE(S): SOURCE: | 2000:2
132:25
Ligand
prepar
Holm,
Soren;
Staten
PCT In
CODEN:
Patent
Englis | presenting assembly (LEA), method of
ation and uses thereof
Arne; Jorgensen, Rikke Malene; Ostergaard,
Theisen, Michael
S Serum Institut, Den.
t. Appl., 100 pp.
PIXXD2 |
| PATENT NO. | KIND | DATE APPLICATION NO. DATE |
| WO 2000018791
W: AE, AL, AM, | A1
AT, AU | 20000406 WO 1999-DK510 1999099 < , AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, , ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, |

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IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
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            DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    AU 9960783
                        A
                             20000417 AU 1999-60783
                                                                19990929 <--
    EP 1117677
                        A1
                             20010725
                                         EP 1999-947256
                                                                19990929 <--
    EP 1117677
                             20031112
                        B1
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, IE, SI, LT,
            LV, FI, RO
                             20031115
                                          AT 1999-947256
                                                                19990929 <--
    US 20040086949
                       A1 20040506
                                          US 2003-724233
                                                                20031201
PRIORITY APPLN. INFO.:
                                          DK 1998-1233
                                                             A 19980929
                                          US 1999-408578
                                                            B1 19990929
                                          WO 1999-DK510
                                                            W 19990929
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OTHER SOURCE(S): MARPAT 132:250004

The present invention relates to a method for preparing a Ligand Presenting Assembly (LPA), an LPA, an immunol. composition and a vaccine. The N-terminal of LPA is coupled to an achiral di, tri, or tetra-carboxylic acid so as to provide a construct having a ring structure. The invention further relates to a method for generating antibodies, a kit for use in diagnosis and use of an LPA for preparing a pharmaceutical composition

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 11 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:532381 CAPLUS

DOCUMENT NUMBER: 129:272557

ORIGINAL REFERENCE NO.: 129:55505a,55508a

TITLE: The development of rapid method for LpA-I by

turbidimetric immunoassay

Ishizuka, Masahiro; Takeda, Naokuni; Kaneko, Takashi; AUTHOR(S): Kondo, Kazuo; Kidou, Toshimi; Itakura, Hiroshige

CORPORATE SOURCE: Dep. Medical Sci., Cosmo Res. Inst., Japan SOURCE: Igaku to Yakugaku (1998), 39(5), 1041-1046

CODEN: IGYAEI; ISSN: 0389-3898

PUBLISHER: Shizen Kagakusha

DOCUMENT TYPE: Journal LANGUAGE: Japanese

AB A method and kit were developed for determining lipoproteins containing only apoA-I (LpA-I). The method involves addition of surfactant and anti-apoA-II antibody to the sample (blood serum or plasma), incubation, and centrifugal separation of LpA-I, then incubation with buffer solution and anti-apoA-I antibody and turbidimetric immunoassay with an automated analyzer. The coefficient of variation ranged 0.71-1.10%. This kit gave results that showed good correlation with those obtained by rocket immunoelectrophoresis.

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SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 15:00:33 ON 09 OCT 2008